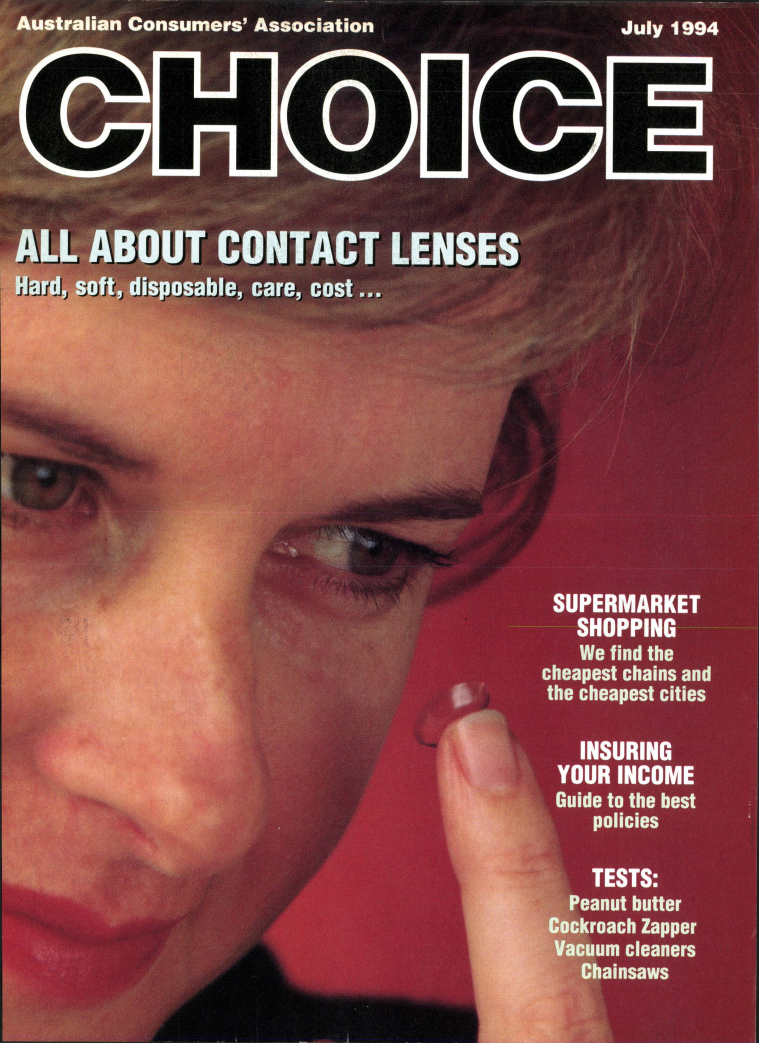
Australian Consumers' Association

July 1994

CHOICE

ALL ABOUT CONTACT LENSES

Hard, soft, disposable, care, cost ...



SUPERMARKET SHOPPING

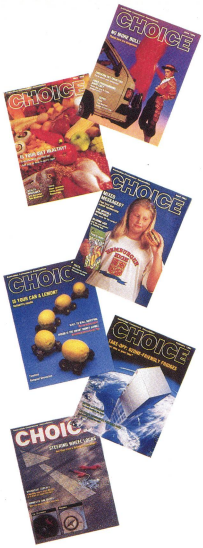
We find the cheapest chains and the cheapest cities

INSURING YOUR INCOME

Guide to the best policies

TESTS:

Peanut butter
Cockroach Zapper
Vacuum cleaners
Chainsaws



Out in the field ...

NOT all of CHOICE's testing is done in our labs, as three of this month's articles show.

For our regular survey of supermarket prices around the country, we rely on the efforts of 33 'shoppers' who head off into their local stores armed with a very particular list of products and a request from CHOICE to the shop's manager that they be allowed to price them for us. Fortunately very few stores refuse.

Two 'baskets' (well known brands vs the cheapest available version of the product) of around 40 items each from 149 supermarkets is well over 11 000 separate pieces of information. These are sent back to us and analysed by our Survey Research department to get the results you'll find in our article, starting on page 6. Many thanks to our shoppers 'in the field'.

For our test of chainsaws (page 37) we literally went out into the field — onto a property down the south coast of NSW, to be precise. Three testers spent several weeks there putting the saws through their paces, to the apparent delight of the local media, which followed their activities closely. We're not sure if they were on the lookout for any sudden accidents, but are pleased to report all fingers and limbs remained intact. Used with care, the saws performed safely even in a bush environment. (And no, we weren't practising on native forests — the saws were used to clear undergrowth and cut firewood, plus a few woodworking endeavours.)

Our evaluation of over 20 income protection insurance policies (page 22) didn't take our writer and verifier far from the office, but our recommendations are based on real-life situations as well as evaluation of the good and bad points of all the policies. There are 15 different scenarios covering people with different ages, jobs, income levels, medical conditions, etc, to help you find one that fits your circumstances.

So CHOICE tests don't just come out of the rarefied atmosphere of a laboratory. We try to evaluate products and services the way you would use them in real life.

Jane Mackenzie
Editor

Who are we?

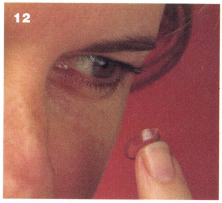
CHOICE EXISTS TO HELP YOU MAKE DECISIONS. It might be a question of which washing machine or fridge to buy, or which insurance policy or bank account to choose. It might be a case of giving you enough information about areas such as health, food and nutrition that you feel confident your decisions are based on sound knowledge. The reason you can rely on CHOICE is that the only interests we represent are yours — the consumer's.

We're not a government department or agency, and we get no ongoing funding from any government. Neither do we receive any subsidies from industry, manufacturers, unions or any other group, and we don't take any advertisements in the magazine. CHOICE survives purely because people like you subscribe to it: over 85% of our income is from CHOICE subscriptions, and the rest from sales of our Consumer Bookshelf and CHOICE Books, plus some special technical services such as testing appliances for their energy efficiency labelling. So we're independent in the true sense of the word: beholden to no-one but the consumers we represent and who keep CHOICE alive.

The organisation behind CHOICE is the Australian Consumers' Association. This does more than just publish CHOICE: we represent consumers' interests at federal and state government levels as a balance to the influence of manufacturers and service providers. You can become a member of the Consumers' Association as well as a CHOICE subscriber if you wish. The small extra membership fee you pay demonstrates your commitment to the rights of consumers, and gives you a subscription to a second magazine — either *Consuming Interest*, our publication covering broader consumer policy, or *CHOICE Travel*.

Around 70 people work at CHOICE in roles ranging from processing your subscriptions to testing the appliances, answering consumer queries, writing the articles in CHOICE and *Consuming Interest*, and representing consumer interests in the public arena. We're here because you think you need us, you trust us and are prepared to pay to keep us going.

VOLUME 35 JULY 1994 NUMBER 7



Cover photo: Rhonda Thwaite

Next issue

Exterior paint, mobile phones, strollers, oven cleaners, new rules for life insurance policies, information about food — cutting through the waffle, public transport — which towns and cities around Australia offer the best service?

September, October, November

Tests: Washing machines, packaged frozen meals, electric lawn trimmers, solar-powered lamps, pedestal fans, food processors, compost bins, baby monitors, more washing machines.
Surveys: Childcare — what do parents want, and what are they getting?; how satisfied are you with your bank's service?; the state of play in electricity and telephone services.
Features: New contraceptives, appliance servicing, buying a fitted kitchen, 'green' charities, credit card options, products for the disabled, working with your body corporate.

Features

12 Contact lenses

Information for wearers and non-wearers of contact lenses — all the facts to help you make an informed choice.

22 Insure your pay packet

Income protection insurance is as important as any other cover for a valuable asset — your life, your home, your car — but judging the best policy is even harder than for most other types of insurance. We've evaluated and rated 24 policies to help you choose.

Tests

6 Shop till you drop

Our regular survey of supermarkets around the country shows a slight increase in grocery prices since last year — but it's still cheaper to shop in the same chains and cities as before.

19 Peanut butter

In some countries peanuts are regarded as a health risk because they can carry toxins. Australians — especially children — eat large quantities of peanut butter. Is there any risk in this country?

30 Cockroach Zapper

Is there an effective way to kill cockroaches without dangerous pesticides? A new model of the Australian-designed Zapper has appeared since our last test of cockroach killers, so we decided to see how well it worked.

37 The cutting edge: chainsaws

Chainsaws have come out of the forest and into the backyard — and electric models are becoming increasingly popular. We checked out 15 models (both petrol and electric) and found significant differences between them.

42 Vacuum cleaners

This time we tested cleaners at the lowest end of the price range — under $200 — and found a few models that sucked up more dirt than some of the more expensive ones in recent tests.

Departments

4 Choice Cuts

Bullbars and airbags; strange instructions; education kit; improving product safety; confusing financial information; selling the roadside.

11 Bodywise

Pets for health; coping with headaches; good news about plastic wraps.

18 Letters

Conservationists against the forestry industry; when you can't return a product; telling your insurance company everything.

31 Consumer Bookshelf

34 Consumer-in-law: Warranty failure

A Victorian Supreme Court appeal judge recently criticised Ford's truck warranty, yet the company has no intention of changing its wording or interpretation.

46 What do you know?

Test yourself with our regular consumer quiz.

Car safety

AIRBAGS, BULLBARS, KANGAROOS AND HOLDEN CARS

THE issue of the safety of bullbars fitted to cars and light commercial vehicles (see *These bars are bull* in our June 1994 issue) was discussed at a workshop in Sydney recently.

During discussions one pressing issue came to light involving the use of bullbars on cars fitted with airbags. Laurie Sparke from General Motors-Holden's explained that the addition of a bullbar to the front of a vehicle can change the build-up of forces during a crash. Sensors rely on this crash energy pulse to trigger the airbag in the event of a serious collision. The fronts of modern cars are designed to absorb energy in a collision by progressive and controlled crumpling. A bullbar may interfere with crumpling and change the impact characteristics enough to cause the airbag to fire at the wrong time. This would decrease its effectiveness and, in certain circumstances, could be downright dangerous.

This problem is a pressing one because July 1995 sees an extension to the Australian Design Rules for new cars which will force them to meet strict occupant injury criteria in a frontal crash. A major tool in designing cars to meet this requirement is the airbag, so consumers can expect to see an increasing number of new cars having airbags fitted as standard. Currently GMH recommends Holdens fitted with airbags should not have a bullbar fitted.

The idea of a total ban on bullbars was criticised by country representatives from the NSW Farmers' Association, Country Women's Association of NSW and the Highway Safety Action Group of NSW, who felt bullbars had a legitimate place in rural areas. One overriding concern was the problem of becoming stranded in the middle of nowhere after hitting a kangaroo. Cars have vital components, like the radiator, which are easily damaged in a relatively minor frontal collision, rendering the car immobile.

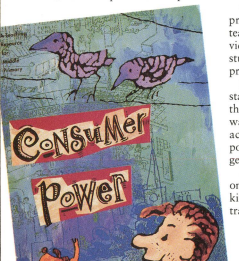
The workshop, sponsored by the NSW Roads and Traffic Authority, the NRMA and the Institution of Engineers, aimed to promote debate and give interested parties a chance to air their views on both the hazards and usefulness of bullbars, and to be a starting point for the formation of policies and research.

What came out of it was general agreement that bullbars are a safety problem, particularly to pedestrians in urban areas and in cars fitted with airbags. More research needs to be done to explore alternatives for rural drivers who need to be able to drive away from an animal strike. The challenge is there for car designers and other interested parties to come up with a safer solution.

Education kit

PRIMARY CONSUMERS

CONSUMER AFFAIRS OFFICES around the nation have co-operated to produce an important package of resources designed to communicate the basics of consumer education to young people.



The new nationally resourced consumer affairs education kit for primary schoolchildren

Costing around $300 000 to produce, the materials include teaching kits and four 15-minute videos. The resource is aimed at students in years three and four of primary school.

In a positive mood, the various state agencies realised the cost of the project and scale of the task was beyond them individually but achievable collectively, so they pooled resources and expertise to get the project off the ground.

If you want more information on the consumer primary schools kit, contact your state office of fair trading or consumer affairs.

A lot of hot air

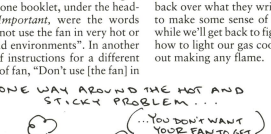
LAUGHABLY SAFE

DURING a bit of a hot spell back in March the air conditioning system at the CHOICE offices gave up the ghost, causing an unprecedented demand at the local department store for desktop fans. In our rush to circulate a bit of air, the fans were quickly unpacked, assembled and set to oscillate their little hearts out, so it wasn't until recently that an interesting safety warning in the instructions on some of the models came to light.

In one booklet, under the heading *Important,* were the words "Do not use the fan in very hot or humid environments". In another set of instructions for a different type of fan, "Don't use [the fan] in a place with high temperature". Where else would you want to use a fan?

In a similar vein we were amused to read the instructions on a disposable lighter designed to light gas stoves or barbecues. The packaging gave the warning, "Extremely flammable. Do not use near fire or flame".

We're all for adequate safety warnings on products but perhaps the manufacturers should read back over what they write and try to make some sense of it. Meanwhile we'll get back to figuring out how to light our gas cooker without making any flame.


ONE WAY AROUND THE HOT AND STICKY PROBLEM...
...YOU DON'T WANT YOUR FAN TO GET TOO HOT, SEE!
BUT IF YOU BOUGHT ANOTHER FAN TO COOL DOWN THE FIRST ONE!!! ETC
FAN SHOP

Product safety

REMOVING THE BARRIERS

THE Commonwealth Department of Human Services and Health recently hosted a two-day seminar on injury control, with the aim of enhancing long-term strategies in this area. One theme at the conference involved consumer safety issues and the leading speaker in this area was the Consumers' Association's Chief Executive Officer, Louise Sylvan. Ms Sylvan, whose talk was entitled *Consumer safety: the barriers to improving product safety*, touched on several problem areas encountered when trying to improve the safety of consumer products. The specific barriers mentioned in her address were:

■ **Lack of information and statistics regarding products and injuries.** Better data-gathering techniques and industry participation are needed to improve the scope and quality of the product safety and injury information available.

■ **Industry apathy, antagonism and ignorance.** Manufacturers need to take a more active role by designing with product safety in mind and improving their knowledge of the relevant safety standards that may apply to their products.

■ **Consumer apathy and ignorance.** Consumers should demand more from manufacturers and look critically at products from a safety point of view. When consumers start demanding product safety, manufacturers will be forced to take the issue seriously.

■ **The Australian Standards system.** Unlike the British and European standards organisations, the Australian Standards system has too little consumer input and does not always represent the consumer's view adequately.

■ **Legal problems.** Australian laws are often too soft on consumer safety. It is, for example, not an offence to knowingly produce an unsafe product, and manufacturers are not compelled to notify the regulators if they find one of their products is unsafe. The division between federal and state governments, and again between different state government departments, can make this worse by leading to confusion over responsibilities.

Jerry Moller, the Assistant Director of Injury Information Services for the National Injury Surveillance Unit, also addressed the seminar on consumer safety issues and echoed Ms Sylvan's concerns. He suggested the current cost to the Australian community from product-related injuries is around $1.4 billion each year, so any success in overcoming the barriers and improving product safety would have great economic benefit to the community as well.

At the end of the discussions the seminar participants agreed that three broad strategies needed to be adopted by government in order to overcome the current barriers to safer consumer products:

■ The current fragmented approach to product safety needs to change. A nationally co-ordinated system needs to be developed.

■ Good mandatory standards need to be evolved.

■ The whole approach to product safety should be a preventative one.

Financial information

ST GEORGE ANNOUNCES ... CONFUSINGLY

DM of Mosman, NSW, was surprised to receive a letter and glossy brochure from St George Bank beginning, "I would like to personally welcome you to St George Bank..." DM was already a St George customer.

He was tempted to throw it away as it seemed to be a promotion for a new product, St George Partnership Banking. Partnership Banking was not explained in the letter.

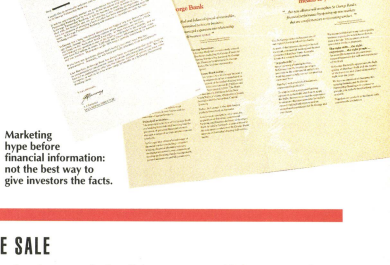
However, a curious reference to another of DM's banks, Barclays, caught his eye: "If you have any questions, please don't hesitate to contact your Barclays representative. Naturally, we will keep you fully informed of all developments."

Fortunately this prompted DM to read on. Turning to the brochure, he found that after nearly a page of self-promotion about St George, 'Partnership Banking' became clear.

"A major new strength is, of course, the acquisition of the retail, commercial banking and finance division of Barclays Bank Australia Limited..."

This was not great news to DM. He had placed money in both banks as an investment strategy to avoid having all his eggs in one basket. Magically, there was now only one basket and the strategy was defeated.

St George should have got straight to the point in its letter to Barclays customers. As with the introduction of bank fees on St George accounts (*Choice Cuts*, April 1994), here is a situation where the customer has to wade through the marketing hype to reach information of financial consequence.



Marketing hype before financial information: not the best way to give investors the facts.

Advertising

ROADSIDE SALE

IT'S not unusual to see people selling flowers or fruit by the side of the road, but on the M5 tollway in NSW it's the side of the road itself which is up for grabs. The M5 is a privately run toll-road which links the inner south-west of Sydney to the Hume freeway. The company in charge of the road, Interlink, has decided to lease the reserve area at the side of the tollway to an advertising company and allow the erection of a series of billboards. The M5 is the first road in Australia to lease its roadsides for advertising. Most billboards are currently located on private land adjoining roads and freeways and not on the roadsides themselves.

The NSW Roads and Traffic Authority (RTA), which leases the land to Interlink, still retains a degree of control over the road and is involved in monitoring the billboards to make sure they don't have any adverse effects on safety. It has the right to veto any proposed site for a billboard and can also influence what's on the board if it thinks it may have an impact on road safety. According to an RTA spokesperson, the advertising of tobacco, alcohol and related products won't be allowed and the provision for the display of road safety messages in conjunction with the advertising has been incorporated into the agreement.

A spokesperson for Interlink assured us the billboard sites had been carefully chosen to have a minimum impact on any private property adjoining the tollway and would not be detrimental to the landscaping of the road reserve area. The sites must also have local council approval.

There are currently four double-sided billboards sited along the 20 km stretch of freeway, with plans for another four in the near future. Each billboard will measure about 12 metres by four metres. A spokesperson for Kablow Holdings, the company which has leased the roadside sites and is in charge of selling the billboard space, said there are no plans to increase the number of billboards beyond these eight sites. He felt having too many billboards would devalue their worth and have less impact on the estimated 47 000 cars that use the freeway every day.

The NSW RTA will be following the M5 venture with interest. It has already identified a number of existing bridges over its freeways which could be used to display advertising signs. An RTA spokesperson said the revenue from such advertising would be used to fund pedestrian bridges on busy roads to improve safety, generally outside schools.

Shop till you drop

This year we've improved our supermarket survey but the cheapest cities and the cheapest chains are much the same as last year.

THE GOOD CITIZENS of Newcastle must be laughing, rolling in the aisles even. While other places have good years and bad years, Newcastle is consistently one of the cheapest places to shop in Australia. For four years in a row it has been the cheapest city in our surveys if you want to buy a basket of well-known branded products and one of the top two cities for the cheapest basket available. This year we changed many of the stores in our survey and the products in our basket but it had no effect on Newcastle's position.

In the cheapest chains battle, Franklins, Jewel and Bi-Lo proved themselves consistently cheaper than their opposition.

As the recession fades into history, inflation was a bit higher last year than the two previous years, when it was almost non-existent. The consumer price index (CPI) went up 1.9% in 1993, with its food component increasing 2.6%. This was reflected in our survey. The price of our basket of brand-name items typically went up by 2%–4%, with Queensland, Victoria and Tasmania experiencing the greatest increases. Our basket of cheap goods was more variable, becoming cheaper in a few places but more expensive in most.

This year's bargain was cheap dishwashing liquid — it's dropped in price almost 20% since last year. Cheap headache tablets, soft drink and toothpaste also came down quite a lot. Of the well known branded products, Kleenex tissues had the greatest percentage decrease in price. The manufacturer, Kimberley-Clark, says competition is fierce in the facial tissue market and everyone's prices have been dropping. This was reflected in our cheapest available tissues, which also dropped in price over the last year.

Three products (sugar, soap and rice) had fairly significant price increases in both the brand name and cheapest available baskets. CSR says sugar is a commodity traded on the world markets, so even though it's a home-grown product its price is affected by exchange rates and market fluctuations. The Rice Growers' Co-operative said the price has gone up three or four cents a kilo in the last year but it may also have been on special at the time of our survey last year (the price did go down then), thus creating an artificially high increase since last year. Cussons says it hasn't put the price of Imperial Leather soap up in the last couple of years but retailers may have been increasing their margins on products like soap.

Peters Ice Cream also had a large price increase, but this is probably also balancing out a comparably large decrease in price the previous year. Peters thinks it was probably being promoted heavily at the time of last year's survey.

A brand new basket

We've made a couple of big changes to our supermarket survey since last year, involving what's included in our basket and what stores we surveyed. But the basic concept is still the same: our pricers checked out approximately 80 items in 149 stores around the country over a two-day period in February this year.

The idea for the basket's content is also still the same: enough to feed a family of two adults, one child, a dog and a cat for a week. However, we decided it was time to update the contents of our basket and commissioned a new survey of what people buy and consume in a week. The result was a basket around half as expensive again as the one we used in previous years, but more indicative of current spending patterns (see Table 1, *What's in our basket and price changes*). As in previous years it excludes fresh fruit, vegetables and meat because not all supermarkets sell them (although some supermarkets claim you're not really a *super*market if you don't) and it would be impossible to be sure we were comparing food of the same quality.

The size of the product we buy is the one most commonly sold, but this figure is then 'weighted' to take into account the average weekly consumption. For example, the average two-adult-one-dog-cat-and-child family won't get through a kilogram box of Weetbix in a week, but they will consume roughly 650 g worth. We use the weighted sizes to work out our overall basket prices.

The products in this year's basket were also checked by our pricers last year, which is how we can make the comparisons.

When considering which specific stores to survey we decided to look at supermarkets in direct competition with each other. For instance, last year in Melbourne we surveyed supermarkets in 17 different suburbs scattered throughout the metropolitan area. This year we chose four suburbs in different geographic and socio-economic regions — Croydon, Ferntree Gully, Preston and Werribee — and looked at all the supermarkets in those suburbs. For example, in Werribee there are six (Bi-Lo, Coles, Festival, Franklins, Jewel and Safeway),

The contents of our new shopping basket. The 'weighted' size in the table below is how much a family of two adults, one child, a dog and a cat are estimated to consume in one week.

Table 1.
What's in our basket and price changes 1993-94

Product (brand)	Size priced/weighted	Brand name products ← Price reduction % Price increase → Cheapest available products (25 20 15 10 5 0 5 10 15 20 25)
Tissues (Kleenex)	224 sheets/115 sheets	
Peaches, canned (SPC)	825 g/1200 g	
Butter (Allowrie/Western Star)	250 g/350 g	
Cordial (Cottee's)	2000 mL/1200 mL	
Tuna, canned (Greenseas)	425 g/500 g	
Tea bags (Lipton)	100 bags/40 bags	
Paper towels (Sorbent)	80 sheets/50 sheets	
Margarine (Meadow Lea)	500 g/500 g	no change
Cream, thickened	300 mL/800 mL	
Toothpaste (Colgate)	110 g/60 g	
Headache tablets (Panadol)	24 tablets/12 tablets	
Coffee (Nescafé)	150 g/ 90g	
Cheese (Kraft Coon)	500 g/500 g	
Yoghurt (Yoplait)	800 g/900 g	
Bread, white sliced (Tip Top)	680 g/2300 g	
Baked beans (Heinz)	440 g/900 g	
Eggs	660 g/600 g	
Dishwashing liquid (Morning Fresh)	750 mL/250 mL	
Cooking oil (Crisco)	750 mL/400 mL	
Laundry detergent (Omo)	1500 g/1300 g	
Chips (Smith's)	250 g/700 g	
Bacon	250 g/500 g	
Surface cleaner (Ajax)	750 mL/250 mL	
Milk	1 L/5.4 L	
Flour	1000 g/700 g	
Toilet rolls (Sorbent)	1800 sheets/850 sheets	
Jam (Cottee's)	500 g/250 g	
Breakfast cereal (Weetbix)	1000 g/650 g	
Frozen peas (Birdseye)	500 g/900 g	
Tomato sauce (Rosella)	600 mL/350 mL	
Biscuits (Arnott's)	500 g/600 g	
Dog food (Pal)	1200 g/3700 g	
Soft drink (Coca-Cola)	2 L/5 L	
Cat food (Whiskas)	410 g/ 1200 g	
Rice (Sunwhite)	1000 g/800 g	
Soap (Imperial Leather)	500 g/200 g	
Ice cream (Peters)	2L/2L	
Sugar (CSR/Bundaberg)	2000 g/750 g	

Table 2.
How the chains compare – % more or less expensive than average

Chain (number of stores surveyed)	Brand-name basket	Cheapest available basket
Franklins No Frills (26)	3% cheaper	5% cheaper
Jewel (14)	2% cheaper	1% cheaper
Bi-Lo (14)	1% cheaper	1% cheaper
Purity (3)	1% cheaper	1% more expensive
Action Food Barn (3)	average	1% cheaper
Safeway (8)	average	average
Woolworths (30)	1% more expensive	average
Coles (42)	2% more expensive	2% more expensive

so we sent people into each of them with our shopping list. We did the same in the other cities and towns in our survey.

The plan for future surveys is to change the areas surveyed from year to year. Capital cities and other big cities will always be included but the suburbs surveyed will probably change. Smaller centres will be swapped around, so if you live in places such as Bendigo, Cairns and Wagga Wagga, don't give up on us — your town will be included in our survey soon.

Cheap chains

Our new method of choosing stores allows us to compare them more directly, as we're seeing them in genuine competition with each other in the same areas. The figures in Table 2, *How the chains compare*, are calculated by comparing the average basket price for a chain with the average basket price of all the stores surveyed. This gives you an idea of whether a chain is cheaper or more expensive than average. Chains where only a small number of stores were surveyed are, in general, not included in the table. Action Food Barn and Purity (three stores each surveyed) are, however, in order to give full comparison for Perth and Hobart.

One thing we always keep an eye out for is an excessive number of specials in a particular store. In the past some stores have seen us coming, so to speak, and suddenly put on a lot of specials which had been removed when we checked again a couple of days later. This year we found nothing suspicious: around 20% of the products in our brand-name basket and 15% of our cheapest available basket were on special. Safeway and Bi-Lo both had higher than average numbers of specials in their brand-name baskets, while the Jewel store in Geelong had no specials in its brand-name basket.

Looking at the cities, it's interesting to note that Newcastle only had a few specials on average in its brand-name basket, yet still came out cheaper than any other city. Adelaide and Orange had the greatest number of specials on average in their brand-name baskets — around 30% — while Perth and Rockingham had the least (12%). There was very little variation in specials from city to city for the cheap basket.

Bargain hunting

Comparing our brand-name basket with our cheapest possible basket shows it is possible to save $20 to $30 a week by choosing the cheaper products. It's worth trying them to see if you're happy with the quality, as there are certainly savings to be made.

The absolutely cheapest basket in our survey came from Franklins No Frills in Port Adelaide, followed closely by Franklins No Frills in Toowoomba. The cheapest basket of brand-name products was also found in Franklins No Frills in Port Adelaide. Tables 4 and 5 on pages 9 and 10 give you the basket prices for each of the stores surveyed. ❑

Table 3.
Cheapest cities and price changes 1993-94

Rank	City (1993 rank)	Average price ($)	← Price reduction % Price increase → 2 1 0 1 2 3 4 5 6
BRAND-NAME BASKET			
1	Newcastle (1)	95.76	
2	Adelaide (3)	97.72	
3	Toowoomba (2)	98.83	
4	Brisbane (5)	98.84	
5	Sydney (6)	98.90	
6	Wollongong (11)	99.19	
7	Central Coast (4)	99.36	
8	Gold Coast (=7)	99.61	
9	Orange (13)	99.79	
10	Townsville (=7)	99.88	
11	Canberra (12)	100.07	
12	Tamworth (9)	100.56	
13	Albury/Wodonga (15)	101.09	
14	Ballarat (14)	101.21	
15	Melbourne (17)	101.86	
16	Geelong (16)	103.67	
17	Perth (20)	107.67	
18	Bunbury (19)	107.82	
19	Rockingham (ns)	109.24	
20	Darwin (23)	115.57	
21	Hobart (21)	115.93	
22	Launceston (22)	117.93	
CHEAPEST AVAILABLE BASKET			
1	Adelaide (3)	70.59	
2	Newcastle (2)	71.55	
3	Toowoomba (1)	73.08	
4	Wollongong (10)	73.54	
5	Central Coast (5)	73.98	
6	Sydney (15)	74.08	
7	Ballarat (8)	74.21	
8	Gold Coast (12)	74.69	
9	Brisbane (4)	75.03	
10	Melbourne (6)	75.07	
11	Tamworth (13)	75.39	
12	Canberra (9)	75.42	
13	Townsville (16)	75.84	
14	Orange (11)	75.87	
15	Albury/Wodonga (14)	76.80	
16	Geelong (7)	78.75	
17	Perth (20)	85.15	
18	Bunbury (19)	86.92	
19	Darwin (23)	89.42	
20	Hobart (21)	90.82	
21	Rockingham (ns)	91.94	
22	Launceston (22)	92.99	

ns not surveyed in 1993, so no comparison possible this year.

Table 4.
Buying the brand-name basket

Rank	Chain/location	Price ($)*
ADELAIDE		
1	Franklins, Port Adelaide *(A)*	90.14
2	Franklins, Salisbury	93.72
3	Franklins, Unley	95.46
4	Bi-Lo, Port Adelaide	96.47
5	Bi-Lo, Salisbury	96.77
6	Woolworths, Salisbury	98.23
7	Woolworths, Unley	98.53
8	Coles, Port Adelaide	99.27
9	Coles, Salisbury	100.10
10	Bargain Foods, Salisbury	100.57
11	Coles, Unley	101.61
12	Jewel Food Barn, Port Adelaide *(B)*	101.76
ALBURY-WODONGA		
1	Franklins, Wodonga	100.83
2	Safeway, Wodonga	101.14
3	Coles, Wodonga Plaza	101.29
BALLARAT		
1	Jewel Warehouse, Ballarat	98.26
2	Franklins, Ballarat	99.28
3	Safeway, Ballarat	103.10
4	Coles, Ballarat	104.18
BRISBANE		
1	Franklins, Stafford	91.42
2	Franklins, Mt Gravatt	93.58
3	Bi-Lo, Sunnybank	96.16
4	Franklins, Capalaba	96.32
5	Bi-Lo, Stafford	98.08
6	Woolworths, Alexandra Hills	98.29
7	Franklins, Ipswich	98.43
8	Coles, Capalaba	98.82
9	Woolworths, Stafford	101.34
10	Coles, Upper Mt Gravatt	101.58
11	Woolworths, Ipswich	102.53
12	Woolworths, Upper Mt Gravatt	102.62
13	Coles, Ipswich	105.75
BUNBURY		
1	Coles, Stephen St	106.78
2	Woolworths, Bunbury Forum	108.85
CANBERRA		
1	Franklins, Belconnen	96.26
2	Jewel Food Barn, Tuggeranong	97.89
3	Coles, Belconnen	100.74
4	Woolworths, Tuggeranong	100.76
5	Coles, Tuggeranong	101.15
6	Woolworths, Belconnen	101.18
7	Cannon's Food Barn, Mawson	102.52
CENTRAL COAST		
1	Jewel Food Barn, Erina	96.24
2	Franklins, Erina	96.92
3	Coles, Gosford	100.99
4	Woolworths, Erina	103.30
DARWIN		
1	Cheap Foods, Casuarina	112.47
2	Woolworths, Casuarina	113.75
3	Coles, Casuarina	117.39
4	Rite Price, Nightcliff	118.66
GEELONG		
1	Jewel Food Barn, Geelong West	100.46
2	Franklins, Waurn Ponds	101.10
3	Safeway, Geelong	101.13
4	Safeway, Waurn Ponds	101.21
5	Coles, Geelong	104.17
6	SSW (Foodtown), Geelong East	113.96
GOLD COAST		
1	Franklins, Southport	92.17
2	Woolworths, Southport Park	99.48
3	Woolworths, Tweed Mall	101.15
4	Coles, Southport	101.74
5	Coles, Tweed Mall	103.52
HOBART		
1	Purity, Sandy Bay	113.85
2	Purity, Glenorchy	114.81
3	Purity, Rosny Park	115.46
4	Coles, Glenorchy	116.92
5	Coles, Sandy Bay	117.03
6	Coles, Rosny Park	117.52
LAUNCESTON		
1	Coles, Mowbray	117.70
2	Roelf Vos, Newnham	118.17
MELBOURNE		
1	Jewel Warehouse, Werribee	95.87
2	Bi-Lo, Croydon	98.22
3	Jewel Food Barn, Ferntree Gully	98.79
4	Franklins, Werribee	100.05
5	Bi-Lo, Werribee	100.74
6	Jewel Food Barn, Croydon	100.82
7	Festival IGA, Werribee	101.41
8	Safeway, Murray Rd, Preston	101.44
9	Coles, Werribee	101.46
10	Safeway, Croydon	101.47
11	Safeway, Werribee	101.57
12	Franklins, Preston	102.53
13	Coles, Ferntree Gully	102.73
14	Safeway, Ferntree Gully	103.02
15	Coles, Croydon	103.86
16	Coles, Preston	104.12
17	Festival IGA, Croydon	104.87
18	SSW (Foodtown), Ferntree Gully	110.41
NEWCASTLE		
1	Franklins, Jesmond	92.74
2	Woolworths, Garden City	92.87
3	Woolworths, Jesmond	94.49
4	Jewel Food Barn, Wallsend	95.73
5	Coles, Garden City	97.01
6	Bi-Lo, Garden City	97.99
7	Coles, Wallsend	99.51
ORANGE		
1	Franklins, Orange	95.67
2	Coles, Orange	100.39
3	Bi-Lo, Orange	101.30
4	Woolworths, Summer St	101.80
PERTH		
1	Coles, Warwick	102.21
2	Woolworths, Warwick	103.90
3	Coles, Midland	106.53
PERTH (continued)		
4	Coles, Subiaco	106.59
5	Action Food Barn, Midland	106.82
6	Action Food Barn, Duncraig	107.24
7	Woolworths, Maddington	107.38
8	Action Food Barn, Maddington	108.22
9	Woolworths, Subiaco	108.43
10	Coles, Maddington	111.06
11	Bi-Lo, Midland	111.68
12	Woolworths, Midland Gate	112.00
ROCKINGHAM		
1	Bi-Lo, Rockingham	108.75
2	Woolworths, Rockingham	109.05
3	Coles, Rockingham	109.91
SYDNEY		
1	Franklins, Macquarie Square, Campbelltown	94.79
2	Jewel — Super J, Mt Druitt	95.05
3	Franklins, Marketown, Mt Druitt	95.66
4	Franklins, Miranda	96.39
5	Jewel Warehouse, Campbelltown	96.70
6	Bi-Lo, Marrickville	96.76
7	Jewel Food Barn, Castle Hill	97.08
8	Franklins, Castle Towers	97.53
9	Jewel Food Barn, Marrickville	97.56
10	Franklins, Marrickville	97.95
11	Woolworths, Marrickville	100.59
12	Coles, Castle Hill	100.75
13	Coles, Marketown, Mt Druitt	100.96
14	Woolworths, Miranda	100.97
15	Coles, Campbelltown	101.19
16	Woolworths, Mt Druitt	101.75
17	Coles, Miranda	101.94
18	Coles, Marrickville	102.35
19	Woolworths, Campbelltown	103.16
TAMWORTH		
1	Bi-Lo, Tamworth	97.80
2	Coles, Tamworth	101.77
3	Woolworths, Tamworth	102.12
TOOWOOMBA		
1	Franklins, Clifford Gardens	93.52
2	Bi-Lo, Toowoomba	99.14
3	Coles, Toowoomba Plaza	100.15
4	Woolworths, Clifford Gardens	102.52
TOWNSVILLE		
1	Franklins, Aitkenvale	92.83
2	Coles, Aitkenvale	101.96
3	Woolworths, Aitkenvale	104.85
WOLLONGONG		
1	Franklins, Wollongong	95.63
2	Franklins, Shellharbour	97.75
3	Coles, Barrack Heights	100.07
4	Jewel Food Barn, Wollongong	100.27
5	Woolworths, Wollongong	102.20

* The prices are based on the 'weighted' size of products — the amount that would be consumed in one week by a family of two adults, one child, a dog and a cat.

(A) For space reasons, Franklins No Frills is referred to as Franklins

(B) The Jewel Food Barn in Port Adelaide is now a Bargain Foods store.

Table 5.
Buying the cheapest available basket

Rank	Chain/location	Price ($)*
ADELAIDE		
1	Franklins, Port Adelaide *(A)*	65.71
2	Franklins, Unley	66.62
3	Franklins, Salisbury	67.27
4	Bi-Lo, Salisbury	68.95
5	Woolworths, Salisbury	69.23
6	Woolworths, Unley	69.72
7	Jewel Food Barn, Port Adelaide *(B)*	70.58
8	Bi-Lo, Port Adelaide	70.96
9	Coles, Port Adelaide	72.94
10	Coles, Salisbury	73.12
11	Coles, Unley	74.68
12	Bargain Foods, Salisbury	77.27
ALBURY-WODONGA		
1	Franklins, Wodonga	72.46
2	Safeway, Wodonga	78.67
3	Coles, Wodonga Plaza	79.28
BALLARAT		
1	Franklins, Ballarat	68.75
2	Jewel Warehouse, Ballarat	72.38
3	Safeway, Ballarat	74.82
4	Coles, Ballarat	80.91
BRISBANE		
1	Franklins, Mt Gravatt	67.71
2	Franklins, Capalaba	69.05
3	Bi-Lo, Sunnybank	69.52
4	Woolworths, Alexandra Hills	70.92
5	Coles, Capalaba	73.19
6	Woolworths, Upper Mt Gravatt	73.54
7	Franklins, Stafford	74.91
8	Coles, Upper Mt Gravatt	75.56
9	Franklins, Ipswich	78.20
10	Woolworths, Stafford	78.93
11	Woolworths, Ipswich	79.41
12	Bi-Lo, Stafford	80.35
13	Coles, Ipswich	84.07
BUNBURY		
1	Coles, Stephen St	84.62
2	Woolworths, Bunbury Forum	89.22
CANBERRA		
1	Franklins, Belconnen	70.16
2	Woolworths, Tuggeranong	74.80
3	Jewel Food Barn, Tuggeranong	74.81
4	Woolworths, Belconnen	75.03
5	Coles, Belconnen	76.29
6	Coles, Tuggeranong	77.64
7	Cannon's Food Barn, Mawson	79.24
CENTRAL COAST		
1	Franklins, Erina	70.96
2	Jewel Food Barn, Erina	72.33
3	Woolworths, Erina	73.01
4	Coles, Gosford	79.61
DARWIN		
1	Woolworths, Casuarina	85.33
2	Coles, Casuarina	87.15
3	Cheap Foods, Casuarina	87.20
4	Rite Price, Nightcliff	98.03

Rank	Chain/location	Price ($)*
GEELONG		
1	Franklins, Waurn Ponds	72.99
2	Jewel Food Barn, Geelong West	73.61
3	Safeway, Waurn Ponds	75.20
4	Safeway, Geelong	75.39
5	Coles, Geelong	76.11
6	SSW (Foodtown), Geelong East	99.20
GOLD COAST		
1	Franklins, Southport	68.95
2	Woolworths, Southport Park	74.35
3	Coles, Southport	74.98
4	Woolworths, Tweed Mall	76.99
5	Coles, Tweed Mall	78.21
HOBART		
1	Coles, Glenorchy	88.45
2	Purity, Glenorchy	90.80
=3	Coles, Sandy Bay	90.82
=3	Coles, Rosny Park	90.82
5	Purity, Sandy Bay	91.11
6	Purity, Rosny Park	92.93
LAUNCESTON		
1	Coles, Mowbray	90.77
2	Roelf Vos, Newnham	95.21
MELBOURNE		
1	Jewel Food Barn, Ferntree Gully	70.35
2	Jewel Warehouse, Werribee	70.82
3	Jewel Food Barn, Croydon	71.06
4	Franklins, Werribee	71.79
5	Bi-Lo, Croydon	71.95
6	Festival IGA, Croydon	73.45
7	Bi-Lo, Werribee	73.48
8	Franklins, Preston	73.81
9	Safeway, Croydon	73.83
10	Coles, Croydon	74.10
11	Safeway, Ferntree Gully	75.10
12	Safeway, Murray Rd, Preston	75.70
13	Coles, Ferntree Gully	75.79
14	Coles, Werribee	76.99
15	Safeway, Werribee	77.25
16	Festival IGA, Werribee	77.58
17	Coles, Preston	78.98
18	SSW (Foodtown), Ferntree Gully	89.28
NEWCASTLE		
1	Woolworths, Garden City	67.33
2	Franklins, Jesmond	68.31
3	Woolworths, Jesmond	68.38
4	Bi-Lo, Garden City	71.76
5	Jewel Food Barn, Wallsend	71.95
6	Coles, Garden City	75.06
7	Coles, Wallsend	78.06
ORANGE		
1	Franklins, Orange	70.41
2	Bi-Lo, Orange	76.05
3	Coles, Orange	78.00
4	Woolworths, Summer St	79.04
PERTH		
1	Coles, Warwick	77.00
2	Woolworths, Warwick	77.67
3	Coles, Subiaco	79.57

Rank	Chain/location	Price ($)*
PERTH (continued)		
4	Action Food Barn, Duncraig	79.58
5	Woolworths, Subiaco	81.26
6	Action Food Barn, Maddington	84.66
7	Coles, Midland	87.51
8	Action Food Barn, Midland Gate	87.67
9	Woolworths, Maddington	87.98
10	Woolworths, Midland	92.15
11	Coles, Maddington	92.76
12	Bi-Lo, Midland	94.00
ROCKINGHAM		
1	Bi-Lo, Rockingham	90.11
2	Woolworths, Rockingham	91.48
3	Coles, Rockingham	94.22
SYDNEY		
1	Franklins, Miranda	67.71
2	Franklins, Marrickville	69.88
3	Franklins, Marketown, Mt Druitt	70.56
4	Bi-Lo, Marrickville	70.58
5	Franklins, Castle Towers	70.94
6	Woolworths, Miranda	71.03
7	Franklins, Macquarie Square, Campbelltown	71.10
8	Jewel — Super J, Mt Druitt	73.68
9	Woolworths, Marrickville	73.86
10	Woolworths, Campbelltown	74.75
11	Jewel Food Barn, Marrickville	74.86
12	Coles, Campbelltown	76.59
=13	Jewel Warehouse, Campbelltown	76.75
=13	Coles, Marketown, Mt Druitt	76.75
15	Coles, Miranda	77.35
16	Coles, Marrickville	77.55
17	Coles, Castle Hill	77.59
18	Woolworths, Mt Druitt	77.67
19	Jewel Food Barn, Castle Hill	78.40
TAMWORTH		
1	Bi-Lo, Tamworth	74.19
2	Woolworths, Tamworth	74.96
3	Coles, Tamworth	77.02
TOOWOOMBA		
1	Franklins, Clifford Gardens	65.98
2	Bi-Lo, Toowoomba	73.56
3	Woolworths, Clifford Gardens	75.79
4	Coles, Toowoomba Plaza	76.98
TOWNSVILLE		
1	Franklins, Aitkenvale	71.45
2	Coles, Aitkenvale	76.60
3	Woolworths, Aitkenvale	79.47
WOLLONGONG		
1	Franklins, Shellharbour	69.95
2	Franklins, Wollongong	71.41
3	Jewel Food Barn, Wollongong	73.99
4	Woolworths, Wollongong	75.21
5	Coles, Barrack Heights	77.15

* The prices are based on the 'weighted' size of products — the amount that would be consumed in one week by a family of two adults, one child, a dog and a cat.

(A) For space reasons, Franklins No Frills is referred to as Franklins.

(B) The Jewel Food Barn in Port Adelaide is now a Bargain Foods store.

HEADING OFF HEADACHES

Headaches are more than a pain in the neck — they can be quite debilitating and traumatic, especially when regular.

Drugs can help. But what can you do without resorting to medicines?

■ Eliminating headache triggers is the best option of all. If you suffer from headaches often, try keeping a diary of when they hit you. Can you identify any triggers? Particular food, substances in the air, noise, pulsating lights and stress are just a few of the possibilities. Even sex and ice cream (not necessarily together!) have been blamed.

■ Tension headaches can sometimes be relieved with regular relaxation exercises, as James Lance explains in his book *Migraine and other headaches*: "Although excessive muscle contraction is no longer considered the most important factor ... gaining control over one's muscles is still the key to physical comfort and diminishes the sense of of tension and anxiety."

■ With recurring tension headaches as well as migraines, it's often worth taking a look at your lifestyle and your current state of mind. Unrealistic expectations, depression and anxieties can result in headaches.

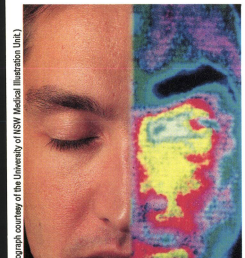
■ Irregular sleeping habits are a problem for some people. One type of migraine known as 'weekend headache' is caused by a slowing in pace over the weekend — especially a sleep-in. Rising at the usual weekday time can help. On the other hand, according to Associate Professor Stephen Davis, writing in *Australian Doctor Weekly*, a rest or sleep can help stop some migraines in their tracks.

Other non-drug aids you might try include:

- Massage.
- Regular exercise.
- Improved posture.
- Eating regular, nutritious meals.
- Drinking plenty of water.
- Wearing sunglasses to lessen glare.

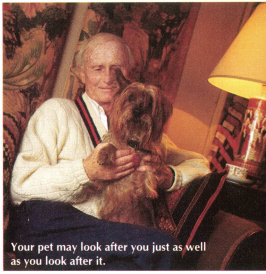
Some headaches are symptoms of a serious disorder. You should always see a doctor if you suddenly start having severe, regular or persistent headaches; have a fever and neck stiffness too; also suffer confusion and speech loss; when headaches follow physical exertion; and if your headaches become more severe or more frequent.

The caffeine in coffee and tea, incidentally, helps constrict dilated blood vessels in the head which throb during a hangover — hence the long-standing habit of reaching for a black coffee the morning after.



(Thermograph courtesy of the University of NSW Medical Illustration Unit.)

An infrared photo of a cluster headache: can you cure them without painkillers?



Your pet may look after you just as well as you look after it.

PET THEORIES ON HEALTH

Australians spend over $600 million a year feeding their 2.8 million cats and 3.1 million dogs. But what do they get in return? A lot more than they bargained for if the results of a study looking at the health of pet owners compared to non pet owners are right.

A study at the Baker Medical Research Institute, Victoria, assessed risk factors for heart disease and found pet owners came out better than non pet owners. They had significantly lower cholesterol levels, lower blood pressure and lower levels of triglyceride fats in the blood.

The study involved 5741 people, 784 of whom owned pets: dogs, cats, birds, fish, horses and "miscellaneous other animals".

Encouraged by the findings of this first study, the research team is nearing the end of a second one involving 100 patients with coronary heart disease (CHD) and a control group of 100 people without CHD.

Chris Reid, one of the research team, says, "Our first study was observational, this second one is a case control. Our third will be a clinical trial where we look at heart rate variability, gain more detailed information about exercise and so on — we're just getting going on that one."

Do the researchers have any pet theories explaining the findings? "It may be stress-related," says Dr Reid.

Meanwhile, look after your pet — it may be looking after you!

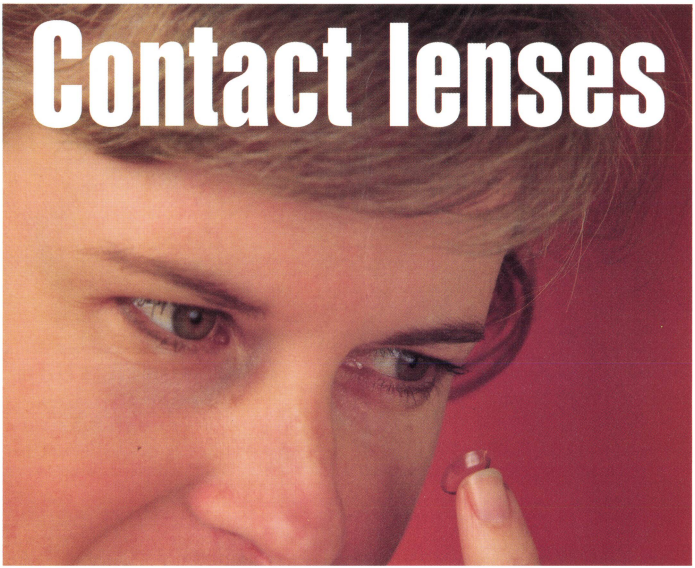
PLASTICS ARE PLAYING SAFE

WHEN WE TESTED DOMESTIC PLASTIC WRAPS back in 1986 we said, "The results of our test are disturbing. We advise you to play safe and stay away from PVC wraps." We planned to repeat the test this year, but our initial research uncovered some good news — domestic wraps (the ones you use in your home) are no longer made from PVC.

So what's wrong with PVC anyway? PVC — short for polyvinylchloride — is not naturally flexible, so when used for plastic wraps it requires substances called plasticisers to give it flexibility. The trouble is that some plasticisers can leach from PVC wrap into foods, particularly fatty ones like cheese.

But most domestic wraps today, we discovered, are made from polyethylene — a plastic regarded as safe when used for its intended purposes.

Contact lenses



Contact lenses can correct most common vision problems, or can simply change the colour of your eyes. For most of our subscribers who wrote to us, they're well worth the trouble, despite the problems often associated with contact lens wear.

WHEN WE FIRST REPORTED ON contact lenses in 1972, soft lenses had just come onto the Australian market. They could well be the predecessors of lenses which can be worn day and night, we said at the time. Twenty-two years later, however, few practitioners would recommend wearing them overnight, let alone for longer.

The development in contact lenses has come a long way since Leonardo da Vinci first envisaged the concept in his early writings. He theorised that a water-filled glass half-circle attached to the eye would improve a person's vision because it gives the front of the eye a regular surface. It was a sound concept, but took nearly four centuries before it was put into practice. Glass contact lenses were first experimented with in the late 1880s, and 60 years later the first plastic lenses were made. The next breakthrough came in the early 1960s with the development of the now so popular soft lenses, made from hydrophilic (water-absorbing) plastic materials. A few years ago we saw the introduction of disposable lenses, which are steadily gaining popularity among soft lens wearers.

A wide variety of contact lenses is available today. They can correct short sight, long sight, age-related focus problems and other vision deficiencies. Some manufacturers are currently researching

Thanks

Thanks to all the subscribers who responded to our request for information. Your comments were invaluable and guided our research.

OFF-THE-SHELF OR CUSTOM-MADE

MOST multinational contact lens manufacturers produce their lenses overseas and distribute them in Australia 'off-the-shelf'. While some Australian manufacturers produce stock shelf lenses as well, many specialise in custom-made lenses made to individual prescriptions. They'll take a day to a week to make to order.

Roughly 80% of contact lens wearers should be able to wear off-the-shelf lenses; the remainder need them custom-made for corrections outside this range. These include, for example, people with a high degree of astigmatism or keratoconus (see page 14 for an explanation of these eye defects) or people who've had eye surgery and require post-surgical treatment.

The two types of lenses don't necessarily vary in price for simple vision corrections. Even if you fit the parameters for off-the-shelf lenses, you may still prefer tailor-made ones — or your practitioner may prefer to prescribe them. "It's a bit like buying clothes," says Charles Di Natale from Eycon Laboratories. "You can fit into anything if you're prepared to be not so rigorous in your application of what it is you're trying on."

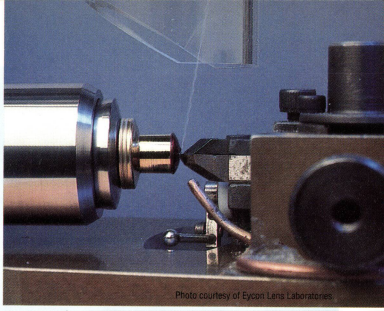


Photo courtesy of Eycon Lens Laboratories

Custom-made contact lenses are shaped out of hard plastic discs with computerised lathes, which are equipped with diamond tools for cutting. The lenses are then polished and soft ones are hydrated and boiled. This lathing technique is too costly for most disposable lenses; they are generally moulded or spun-cast.

a lens for continuous wear for up to 30 days, but as yet it's still a distant concept. Other research is focusing on daily disposable lenses, which are worn for a day and then thrown out. It will probably take some years before such a lens is developed that is both affordable and environmentally friendly.

The risks

When disposable lenses were first marketed a few years ago, the concept seemed very attractive: wear them for a certain time without taking them out (most said a fortnight or a week), throw them away, let your eyes rest for a night without lenses and start with a brand-new pair for another week. No more expensive care treatments and time-consuming cleaning routines.

However, the higher risk of infection associated with contact lenses — in particular with soft lenses — has made practitioners, manufacturers and researchers cautious in their recommendations as to how long to wear them. Everybody with whom we spoke gave us one message: there's no lens yet on the Australian market that's recommended for safe extended wear. We were therefore surprised to hear from one subscriber, who told us about lenses she wears for prolonged periods. However, they're not normally available commercially.

Eyes need oxygen

The cornea has no blood vessels to supply oxygen to the eye. It obtains it from the air dissolved in tears — and contact lens wear can affect this supply. If the eye is deprived of oxygen from this source, blood vessels grow into the cornea — a condition called corneal vascularisation. Regular check-ups are important to detect this or other problems early. If left untreated, the cornea will suffer from oxygen starvation and will become more susceptible to swelling, ulcers and, in rare cases, loss of sight.

Soft lenses are made from materials which can absorb between 30% and 80% of their own weight in water. The standard material used for conventional soft lenses is a plastic called Hema, with about 38% water content; in disposables it's usually higher. Current technology can now make soft lenses with a centre thickness of half a human hair. The thinner the material — and the higher the water content — the more oxygen can get through to the cornea.

It's important to take lenses out overnight and not to wear them for too long a period at a time. What's considered 'too long' varies from practitioner to practitioner. Some of those we spoke to recommended wearing lenses during working hours only; others thought lens wear during all waking hours could well be tolerated. If you must wear your lenses for an extended time on occasion, give your eyes a rest without lenses for at least half an hour before going to bed and before inserting them again in the morning. Of course, how long you're comfortable with your lenses also depends on your own sensitivities. Some people may experience irritation — or feel their eyes are getting tired — after shorter periods than others.

The classic **hard lens** is made from PMMA, a hydrophobic (water-repellent) rigid plastic material which lets no or very little oxygen through to the eye. The now more commonly prescribed rigid gas-permeable (RGP) lens is made from more porous plastic materials with varying degrees of oxygen permeability.

Protein accumulation

A contact lens floats on and is covered by the protein-rich tear film of the eye. Protein deposits can easily accumulate on the lens and must be removed regularly — once a week on average — with special protein-removal products. Daily cleaning and disinfection do not remove all protein deposits.

As the quantity and 'quality' of tears vary from person to person, some may experience little or no problem with protein accumulation while others, more sensitive to the protein, can develop an allergic reaction which can lead to bumps forming under the eyelids.

If your eyes feel dry and itchy and your lenses become uncomfortable, protein accumulation is likely to be the problem. Your lenses won't necessarily appear cloudy, but if they do, that's certainly an indication too much protein has built up on them. Consult your practitioner; he or she will check whether it's the solution, your cleaning routine or the lenses that are causing the trouble. Make sure you have your eyes checked regularly (once or twice a year) for vision and diseases, even if everything appears all right. Minor complications — which mightn't be noticeable at all — can turn into serious problems if left untreated.

Conventional soft lenses are more prone to protein build-up than RGP

COMPROMISE FOUND

ALISON HAYNES has been wearing soft contact lenses — on and off because of problems — for about a decade. But it wasn't until a few years ago that an eye specialist told her to limit her daily wearing time to eight hours. Since then, she's changed her lenses, her routine and her attitude — and it works well for her.

When she first tried soft lenses, Alison would wear them for 12 hours or more most days, but she admits to leaving them in overnight on occasion. "I was a student at the time and there were lots of parties. Of course it happened that you'd crash somewhere on the floor late at night without removing your lenses."

Two years later Alison developed streaming, painful eyes, probably caused by a virus caught on a trip to Egypt. She was given eye drops and gave contact lenses a miss for a few years. Her second attempt with soft lenses remained trouble-free for two years, until her migration to Australia. "On the fourth day of my new job I got a gritty feeling in my eyes. They were sore and red," she says. The stress from her new situation had brought on a new outbreak of the virus. It was then that an ophthalmologist told her to limit her daily wearing time.

Alison has not had an eye infection for about three years. She now wears disposable lenses just occasionally, once a week maybe, and usually for about five hours a day only. "It's more convenient. I don't have to worry about protein build-up and it suits me fine. This compromise works really well for me," she says. "I've also changed my attitude towards glasses. I don't think they're such a bad thing now as I did when I was a teenager."

lenses. If discarded fortnightly or earlier, disposables don't have to be specially treated.

Some soft contact lenses are made from a 'reduced deposit' material (a modified Hema-based material with 40% water content), which is claimed to have the ability to resist or minimise the accumulation of protein deposits without the need for a special protein remover.

While such lenses are more durable and more deposit-resistant, they may be less comfortable to wear for anyone who is used to soft lenses with a higher water content.

Vision deficiencies that contact lenses can correct

Most of the common vision problems can be corrected with contact lenses.

■ **Myopia:** People with short sight can't see distant objects clearly. The eye is usually too long from the front to the back, so the image falls short of the retina.

■ **Hyperopia:** People with long sight see close objects blurred. The eye is usually shorter than normal, so the image would be focused behind the retina.

Both hard and soft spherical contact lenses can correct ordinary long and short sight.

■ **Astigmatism:** People with astigmatism see distorted images. The front of their eye is slightly oval-shaped rather than spherical, so rays of light focus at different points. 'Toric' contact lenses — specially formed lenses to adapt to the different shape of the front of the eye — can correct astigmatism. They come as RGP or soft lenses, or as a hybrid combining an RGP centre with a softer outer edge.

■ **Presbyopia:** People over the age of 40 usually experience a gradual loss of the ability to focus, mostly on very close objects. This age-related complaint occurs with the stiffening of the eye's internal lens. Presbyopia can be corrected with bifocal or monovision contact lenses (see *As we're growing older* on page 16 for more information).

■ **Keratoconus:** People with keratoconus have blurred distant *and* near vision because the cornea becomes conical in shape. In general, only specially designed contact lenses can correct this condition.

Rigid or soft

RGP contact lenses are generally much more suitable for the eyes than traditional hard lenses, and the materials used provide better quality of vision than soft lenses. "It was like seeing in technicolour for the first time," says one of our subscribers who switched from soft to hard lenses. They can be polished from time to time and last on average two to three years, depending on material and maintenance. But we've heard from subscribers who've worn a pair without problems for much longer.

Compared with the popular soft lenses, hard and RGP lenses are:

■ Easier to handle.

■ More durable.

■ Easier to insert into the eye.

■ More uncomfortable when dust gets into the eye.

■ More difficult to adapt to — acclimatisation takes longer. (But our respondents — about half of whom wore rigid lenses — indicated that initial perseverance usually resulted in trouble-free wear for many years.)

Perhaps because of this greater difficulty in getting used to hard lenses, soft lenses hold the lion's share of the market (about 85% to 90%) and of these, nearly half the number sold are disposables. Because of their thinness and high water content, soft lenses are very flexible, which makes them much easier to acclimatise to than rigid lenses, especially for first-time contact lens wearers. However, as they're more fragile, they're also more difficult to handle, and looking after them requires more care and more expense.

Soft contact lenses must always be kept wet, otherwise they'll dehydrate and get hard and brittle. Daily-wear conventional lenses can on average be worn for 12 to 18 months. How long yours last depends on how often you use them and how you look after them.

Disposables

The most common disposable lenses available in Australia are recommended (by the manufacturers and practitioners we spoke to) for daily wear for up to two weeks. Another type of disposable — commonly referred to as a frequent-replacement lens — is marketed for daily

READING GLASSES THROWN AWAY

JENNIFER MONGER started wearing hard contact lenses in 1965 to correct her short sight and astigmatism. She had no problems with them and liked the freedom of not having heavy glasses on her face — and being able to peel onions without crying! "The only possible disadvantage of using contact lenses is the cleaning and sterilising process, but this is nothing compared with the benefits."

Seventeen years later, Jennifer's eyes became extra-sensitive to glare and the lenses quickly accumulated a mucus deposit. In her job at the time, Jennifer was on call during the night and had to wear glasses. However, she couldn't tolerate glasses for at least two days after removing her lenses, as she was told her eyes had moulded to the shape of the lenses — a condition which wasn't considered dangerous, but enough of a nuisance to make her go back to spectacles full-time. "I decided the trouble I was having with the lenses was not worth it and I reluctantly gave up wearing them," she says.

In 1990 Jennifer heard that astigmatism could also be corrected with soft lenses and she gave them a go. "They were wonderful, very comfortable to wear and readily interchangeable with glasses, if necessary," she says. By then, Jennifer had also developed the long-sightedness that comes with age and had been prescribed reading glasses as well — and bifocal glasses for the times when she wasn't wearing contact lenses.

Since 1992 Jennifer has been wearing bifocal contact lenses. With this one pair of lenses, which she wears every day, all her vision problems have been solved. "The optics involved must be truly amazing — to correct astigmatism, short sight and the long sight of old age in one small, pliable piece of plastic," she says. "I have thrown away my reading glasses and hope to wear this type of lens for many years to come."

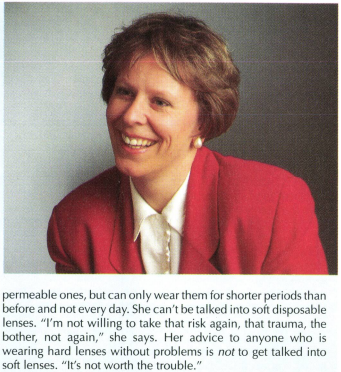
STICK TO WHAT SUITS YOU

AS A YOUNG GIRL, Chris Franks hated glasses. "I used to wear them as little as possible and would walk past people without recognising them!" But that all changed when she entered the workforce 18 years ago. She spent her first pay packet — all of it — on a pair of hard contact lenses and hasn't regretted the move, despite some problems in the past.

Chris wore her lenses all day long, sometimes for quite long periods when she worked night duty. She lost the odd lens, but had no eye problems for 10 years, until she switched to soft lenses. "Then my hassles started," she says, "I got conjunctivitis." For nearly a year, Chris could only wear her soft lenses on and off. As soon as one infection had cleared up and she started wearing them again, another would flare up.

Chris took particular care with her lens cleaning routine and even changed solutions, in case she was allergic to one, but her problems wouldn't stop. "I was constantly at the optometrist's and was wearing glasses more often than lenses." An eye specialist then diagnosed an auto-immune reaction to the protein from her tears that had accumulated on the lenses and advised her to stop using soft lenses. It took her another year without any contact lenses, with "endless eye drops and ointments", before the infections gradually diminished.

Chris is meanwhile wearing contact lenses again, rigid gas-permeable ones, but can only wear them for shorter periods than before and not every day. She can't be talked into soft disposable lenses. "I'm not willing to take that risk again, that trauma, the bother, not again," she says. Her advice to anyone who is wearing hard lenses without problems is *not* to get talked into soft lenses. "It's not worth the trouble."



wear for about one to six months. Disposable lenses are usually mass-produced (moulded or spun-cast), which makes them cheaper than cut, tailor-made lenses (see *Off-the-shelf or custom-made* on page 13). If you wear disposable lenses for longer than intended, you risk damaging your eyes, as the material can deteriorate and attract more deposits.

Compared with conventional daily-wear soft lenses, disposables:

- Are less costly to replace when you lose one.
- Can reduce the risk of eye infections caused by protein build-up, as they're thrown away before too much protein can accumulate on the lens. If you wear your disposables on a daily basis for more than a fortnight, check with your practitioner whether you need a protein remover.
- Are convenient on travels when you don't want to carry too many cleaning solutions and when it's difficult to stick to lengthy cleaning procedures. They can be cleaned with easy-to-use, one or two-step solutions.

AS WE'RE GROWING OLDER

IN THE PAST, contact lenses might have helped with short sight, long sight or astigmatism, but for the common age-related focus problem (presbyopia), contact lens wearers had to use additional reading glasses (as for long sight), or switch from lenses to bifocal glasses.

In recent years, however, some manufacturers have developed bifocal contact lenses (which enable the wearer to focus on two points) and multifocal lenses (for focusing on any point near or far). These lenses are available in all types (soft, rigid gas-permeable or hard) and are custom-made for each individual's special combination of distance and near vision.

Bifocal lenses haven't gained wide market penetration yet; the development is still in the early stages. But as the baby boomers are growing older, more and more people will need correction for presbyopia. And manufacturers will undoubtedly work to satisfy the needs of that growing market.

For some people, bifocal lenses have come as a godsend (see *Reading glasses thrown away* on page 15); others might find them unsuitable. Just as with bifocal glasses, these lenses usually take longer to adapt to.

If you can't handle multi- or bifocals, a monovision prescription may solve your problems. Monovision means that one eye (usually the dominant eye) is fitted with a lens to correct long sight and the other eye with one to correct short sight. To be able to alternate between the type of vision required (monovision for work, for example, and binocular vision for sport and recreation) patients may require three lenses (two distant and one near).

Although monovision disrupts the patient's binocular vision and can generally decrease the quality of sight, it shouldn't affect a person's driving ability. "It's not like walking around with a patch over your eye," said one practitioner we spoke with. He, and others in the industry, believe people prefer monovision over bifocals. One lens manufacturer reported a higher than 75% success rate with monovision.

Advantages of contact lenses over spectacles

If worn and cared for properly, contact lenses will:

- Correct your vision problem invisibly; coloured ones can even change the colour of your eyes — though not of your vision.
- Improve your peripheral vision as they don't confine the field of view.
- Eliminate vision problems in the rain; and they don't steam up when you walk out of the cold into a warm room or when you're washing the dishes, as spectacles do.
- Make it easier to take part in most sports and reduce the risk of eye injury from sport accidents. However, glasses with plastic lenses may be an even better option for some people.
- Even be wearable when swimming. To avoid losing the lenses, keep your eyes closed under water. For water sports, wear tight-fitting goggles which will protect your eyes and lenses from pool chemicals (chlorine can remove lens tint). If you frequently play water sports, check with your practitioner which lens type will suit you best.
- Make it easier to use a camera and binoculars.
- Eliminate pressure points on the nose from spectacle bridges.
- Eliminate the need for prescription sunglasses, though you still need ordinary sunglasses.

The costs to consider

- **Cost of lenses** (either initial costs of soft and RGP lenses or annual costs for disposable lenses). Prices for contact lenses vary depending on the individual correction required for your eyes, material used in the production, and tint. Soft conventional and RGP lenses cost on average $200 (practitioners mentioned price ranges from $140 to $400) and disposables about $300 to $400 a year. Under ancillary cover, private health insurers usually contribute towards the cost of contact lenses. Like glasses, they are not covered by Medicare.
- **Charges for the initial consultation, fitting and after-care visits at your practitioner.** The current Medicare rebate is $107.45 (that's 85% of the schedule fee of $126.40). Only some patients will be able to recover these charges from Medicare. Your practitioner can tell you whether the vision correction you require qualifies you for a rebate. Many optometrists bulk-bill; if they don't, patients will have to pay the remaining 15% and any extra charged. This schedule fee is for the initial consultation and fitting of contact lenses, regardless of the number of visits it takes until the lenses fit properly.
- **Annual costs for care products.** Lens care products will cost you on average $180 to $240 per year. On the shelf of your optometrist's or pharmacy, the prices for various solutions from different brands don't seem to vary greatly; however, the size of the products often does. The type of lens you have will probably determine the type of care system you have to use; you can't just choose the cheapest. While you shouldn't switch between products from different brands, by shopping around you may be able to find a cheaper brand for the system you have to use. Lens care products are not covered by Medicare or private health insurance.

Conclusion

Roughly half the Australian population needs vision correction, but only a very small proportion (about 3% to 5%) chooses contact lenses. Industry representatives believe people know too little about contact lenses and have misconceptions — and also blame media scaremongering. For the majority of subscribers who wrote to us, the advantages of contact lenses far outweighed the disadvantages. With meticulous care and regular check-ups you should be able to reduce or eliminate any problems. "Don't think that just because you've got a pair of lenses, if you don't wear them seven days a week you're a failure," said one of the manufacturers we spoke to. "They're there to enhance your lifestyle, not to overtake it." ❑

WHERE TO GO

- **Optometrists** test the eyes for vision correction, prescribe glasses or contact lenses and diagnose eye diseases. They can also make and dispense spectacles and contact lenses.
- **Ophthalmologists** or **ophthalmic surgeons** are medical doctors who deal with the anatomy, functions and diseases of the eye. They check eyes for diseases and vision, treat eye diseases and injuries, and prescribe glasses or contact lenses. Ophthalmologists often also specialise in eye surgery.
- **Optical dispensers** or **opticians** make and/or dispense spectacles and contact lenses according to prescriptions from optometrists or ophthalmologists.

Around 90 cleaning solutions of one sort or another are on the market — use the type of system recommended by your practitioner, not just the cheapest.

HOW TO CARE FOR CONTACT LENSES

WHEN YOU remove, clean and insert your contact lenses, make sure your hands and any surfaces you put the lenses on are clean. Put a plug in the wash basin to avoid losing one down the drain, and clean one lens at a time so you don't mix up right and left.

A large range of solutions (about 90 different preparations, in fact) is available for cleaning, rinsing, disinfecting, storing and rewetting contact lenses. They're usually part of different care 'systems' which contain all necessary products for the type of contact lens you use. Some systems are for soft lenses only, others for hard or rigid gas-permeable lenses and others again for all types. Using the wrong system can damage your lenses. It's important that you don't switch between products from different systems, unless advised by your practitioner. The solutions may contain different active ingredients which could interact.

The added convenience and simplification disposable lenses have supposedly brought to contact lens wear are reflected in lens care, with a trend towards 'all-in-one' or 'one-step' solutions for cleaning, rinsing and disinfecting. These solutions are sufficient for disposable lenses; for conventional daily-wear lenses, however, a separate daily cleaner and a protein-removal product are still required.

The traditional care routine with multi-step systems is outlined below. If your practitioner advises you otherwise, follow her or his advice.

■ **Cleaning.** Contact lenses have to be cleaned daily — after every wear period in fact, no matter how short it is. A rubbing action with the top of your finger in the palm of your hand is extremely important to remove any dirt, pollution or make-up particles. Rub each side of the lens for at least 15 seconds.

■ **Rinsing.** Rinse your contact lenses with saline solution, which is available with or without preservatives. Bottles of unpreserved saline are cheaper and suitable for people who are sensitive to preservatives, but they're also prone to bacterial contamination. They have to be kept refrigerated and any that's not used within 30 days of opening must be discarded (write the opening date on the bottle). In aerosol and single-dose form, unpreserved saline doesn't present that problem. Hard lenses can either be rinsed with saline or with a disinfection/storage solution.

■ **Disinfecting.** Disinfect your contact lenses after each wear to kill bacteria that can grow on dirty lenses. Soft lenses can be disinfected in heat, chemical, hydrogen peroxide or chlorine systems; hard lenses in chemical or hydrogen peroxide systems. Though usually considered slightly more inconvenient, heat systems are an alternative for people who are sensitive to certain chemicals. Discuss your preferences with your practitioner and follow the instructions on the system.

■ **Protein removal.** To break down protein deposits from tear fluid, all contact lenses — except disposables which are discarded weekly or fortnightly — have to be treated with special enzymes. How often this needs to be done depends on the individual's quality and quantity of tear fluid; once a week is usually recommended.

■ **Rewetting.** Some contact lens wearers may need special rewetting or lubricating products for some types of lenses. They are marketed for added comfort while wearing the lenses, and are supposed to clean them while you wear them, rehydrate soft lenses and cushion hard lenses during insertion. They don't replace daily cleaners but can be used to rinse lenses in emergencies, when lens care products aren't available. (Their price would prohibit such a usage outside emergency situations anyway!)

■ **Storage case.** Keep your contact lens storage case immaculately clean. Use the cleaning method prescribed by the system you use, or by your practitioner.

If you wear make-up

■ Insert your lenses before you put on make-up and remove them before you take it off.

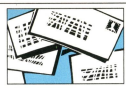
■ Water-based cosmetics are better for contact lens wearers than oil-based products as these can damage your lenses.

■ Close your eyes when applying loose powder.

■ Avoid powder or compact eye make-up, as the gritty particles can get into your eyes and cause irritation. Cream or liquid eye make-up is better for contact lens wearers, but it should never be applied on the inside edge of your eyelids.

■ Avoid mascaras that claim to 'extend' your lashes — the fibres they contain could get into your eyes and cause irritation.

■ Close your eyes when applying hairspray or other aerosol products.



LETTERS

Send your letters to **CHOICE, 57 Carrington Road, Marrickville 2204**. Where possible, please include your daytime telephone number, as we may wish to contact you direct for more information or to discuss your comments and queries.

CAN'T SEE THE FOREST FOR THE TREES

I was disgusted to see an industry spokesman using the letters page of CHOICE (December 1993) to defend the destruction of native forests. However, if the information provided by C Bongers of the Queensland Timber Board is correct, there is a clear case for curtailing the operations of the timber industry.

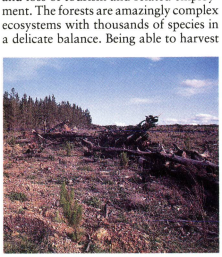
Two points raised by C Bongers require further consideration:

■ *"Much of our 32 million hectares of public forest exists today because it was saved in state forests and timber reserves."* While this may be an indictment of the way development has displaced forests, it is not a defence of current industry practices.

■ *"Plantations produce only about one third of Australian wood consumption."* This is an admission that the timber industry is not capable of providing its own raw materials on a renewable basis without relying on native forests.

Combining these two facts shows us that two thirds of timber production is currently sourced from our dwindling remnant forest areas. This is the situation which leads to conflict between the industry and conservationists.

The industry argues that it only removes timber on a sustainable basis, but the only thing being sustained is the removal of trees. The industry finds it profitable to either ignore or pay lip service to things such as extinction of animals and plants, erosion, loss of water quality and loss of tourism and related employment. The forests are amazingly complex ecosystems with thousands of species in a delicate balance. Being able to harvest another generation of trees in 40 years' time does not provide ecological sustainability. A lot of people also regard it as the indefensible sacrifice of our heritage.



Lastly, can we accept there is any truth in the Queensland Timber Board's claim that CHOICE is not providing "genuinely independent and accurate advice to consumers"? I can provide my own answer to this question because I feel that I can rely on information provided in CHOICE rather than by industry propagandists.

P Morris
Warners Bay, NSW

TALK TO YOUR INSURER

My wife and I recently undertook what was to have been our once in a lifetime retirement celebration of a trip abroad, a three-month tour of Britain and Europe. On booking with a travel agent and paying a deposit we immediately and carefully bought a comprehensive travel insurance policy.

Next step was a health check-up, where for the first time I was found to have a circulation problem and corrective surgery was advised. We informed the surgeon of our intention to travel in five months' time and enquired about its advisability. I was assured of recovery well within the time frame.

One clause in the insurance policy document required disclosure of "pre-existing medical conditions". We were assured that no condition remained following the surgery and I did not need to be treated within 30 days prior to the insured period. Based on the surgeon's advice we concluded the previous problem was not relevant to our travel policy.

Four days into our journey I sought medical advice, as indications were that all was not well. I was admitted to hospital, where an operation was performed to correct a breakdown in the previous surgery. As a result we had to cancel the remainder of our plans.

The insurance company has declared our claim invalid under the "pre-existing condition" clause. Legal advice has been that we could not win a challenge to the insurance company but we could stand a chance against the surgeon on the grounds of negligence and failure to give full advice.

Our feeling on this is: at what cost could we challenge the might of the insurance or medical professions?

Our advice to readers is to check out your interpretation of clauses with the most experienced people you can find. Don't expect a doctor to throw doubt on his diagnosis; at least seek a second opinion.

M Burnham
Padstow Heights, NSW

It's sound advice always to tell your insurance company anything that could be considered relevant to your cover, so you can be sure of your situation before a problem arises. Some travel insurance policies will waive the pre-existing condition clause if you submit a medical certificate which indicates fitness to travel. Alternatively some private health insurance policies will cover your pre-existing condition overseas. Ask around.

PRICELESS ADVICE

For Christmas I received a gift of headlight protectors and dashboard protector mat from my husband. The dashboard protector mat had a fault in the sewing. My husband did not keep the docket but he did leave the price tag on the product. I returned the mat to the auto gear store where it was bought, only to be informed that the price tag was not enough proof of purchase for a refund (even without the fault the mat appeared to cover some of the air vents, so I didn't want it at all).

On consulting Consumer Affairs I was advised that if the price tag does not identify the store name then what the retailer told me is correct — I have no proof of purchase. Now I am stuck with a mat I don't want. My advice to consumers is not to buy from stores which do not have the store name on the price tag because you have no recourse to justice.

L Jarvis
Tingalpa, Qld

The Trade Practices Commission says you're entitled to a refund if the goods "have a fault you could not have known about when you bought them" but not "simply because you decide you don't like the goods or have no use for them". It also advises you to keep all invoices, dockets, credit card receipts and cheque stubs as proof of purchase.

PEANUT BUTTER

We found several samples of peanut butter with undesirable levels of aflatoxins — substances that are poisonous in large quantities. What does this mean for consumers?

THE PEANUT — also known as the ground nut or monkey nut — is not a nut at all. But although it's really a legume, it has more in common with the nut than with its other namesake, the pea.

The peanut is native to Brazil, and has been found in South American tombs dating back to 950 BC. It was introduced from the New World into Africa by early explorers and missionaries and later taken to North America with the slave trade, as food on the journey. It's since become a popular crop in many parts of the world, including Australia.

Peanuts grow under the soil (hence the name 'ground nut') on long tendrils left over from the withered flowers of the *Arachis hypogaea* bush. They are high in protein and in oil and are used in a variety of forms in many countries' cuisines: cooking oil, peanut meal, saté sauce — and of course, the form we are perhaps most familiar with, peanut butter, made from ground and blended peanuts.

Risk of toxins

Peanuts are subjected to food inspections and regulations because of their susceptibility to moulds which produce aflatoxins. These are poisonous substances produced by some strains of the moulds *Aspergillus flavus* and *Aspergillus parasiticus*, which grow on a range of crops: peanuts, maize and rice, to name but a few. Aflatoxins are considered carcinogenic — increasing the risk of liver cancer in particular.

The moulds grow in conditions of high humidity and temperatures of 25 to 30°C. Crops are most susceptible when undernourished, as their anti-fungal defence is lowered. During droughts moulds usually grow before or during harvest, but can also occur when peanuts are stored incorrectly.

For many toxic substances there is an 'acceptable daily intake' or ADI — a daily intake level which should cause no problems. However, there is no ADI for aflatoxins as, since they're regarded as carcinogenic, it's best to eat none at all.

Limits increased to suit suppliers

Peanuts do have a 'maximum residue limit' or MRL for aflatoxins. This is the maximum concentration of a chemical residue permitted in a food. The MRL in Australia for aflatoxins in peanuts is 15 parts per billion (ppb) and is based on the lowest practical level producers claim they can meet. Until 1978, it was 5 ppb, but was raised to 15 ppb in that year when the Australian peanut crop was badly affected by pre-harvest drought and post-harvest rain; the industry said it simply could not meet the lower level.

At the time the plan was to reduce the MRL again, but 16 years later the higher level stands. One manufacturer we talked to said its own internal standard is 10 ppb; in other words, if a batch is found with more it's scrapped. We'd like to see the MRL reduced again — after all, it's there to protect consumers, not to make life easier for suppliers.

Limits like the maximum residue limit are set with very large margins of safety. With something like aflatoxins it seems there are levels of risk:

- Occasional relatively low-level exposures are unlikely to harm.
- Regular relatively low-level exposure — this should be avoided, hence regulations about maximum residue limits.
- Occasional large doses — if the amount is large enough it can be serious.
- Regular large doses are most dangerous of all and it is this type of exposure, in populations which regularly eat a contaminated crop as part of their staple

SAFE STORAGE

Although the problem of aflatoxins is one which usually starts before harvest, it is important to store and handle peanuts properly at each stage of their use. This includes your handling in the home. Peanuts should be kept in an airtight container in a cool place or a fridge. Unfortunately you can't always tell if a peanut is off. Even when opened, peanut butter will keep in a cupboard or on a shelf until its use-by date.

The peanut butters we tested: a few contained a slightly higher level of aflatoxin than they should, but there was no indication of dangerous levels overall.

diet, which is most closely linked to liver cancer.

The Australian situation seems to be the first — occasionally batches are slightly over the limit, reflecting the difficulty of assuring aflatoxin-free peanuts.

An expert we spoke to estimated that in practice occasional levels of under 100 ppb would not be harmful. He said he would be concerned to regularly see levels of 30 ppb and over — this is not the case in Australia now.

Finding a peanut in a haystack

We decided to test brands of peanut butter for aflatoxins after a batch was recalled in Australia last year because of a high level of aflatoxins. We were also interested to find out how freshly ground peanut butter from health food shops fared.

One of the difficulties with peanut butter is that it can take only one mouldy peanut to contaminate a larger amount of peanut butter, as the contamination is spread when the peanuts are ground and blended. At the same time, one part of a batch may be clear, while a neighbouring portion is contaminated: detecting aflatoxins is like finding a peanut in a haystack. This means even well enforced quality assurance systems on the part of manufacturers and suppliers cannot absolutely guarantee aflatoxin-free peanuts and peanut products.

We tested nationally available brands. For most we analysed three samples each of both smooth and crunchy peanut butters, from different batches where possible. The brands we tested were:

- BASCO
- BI-LO
- BLACK & GOLD
- CROWN
- DAFFODIL
- ETA
- FARMLAND
- HOME BRAND
- KRAFT
- NO FRILLS
- NO NAME
- PAYLESS
- PDF
- SANITARIUM
- SAVINGS

We also took samples from 40 health food shops in NSW, WA and Victoria. This gave us 127 samples in all.

Almost two thirds of our samples contained aflatoxins: 45% of health food shop samples and 68% of branded products. This in itself is not necessarily a problem. What we were concerned about were levels above the MRL.

Our tests found seven samples over 15 ppb — that's almost 6% of all our samples. When we asked experts in the field of aflatoxins and peanut butter what this meant, the responses were varied. One industry manager said he was "uncomfortable with that figure" and was keen to look further into where particular batches had come from. One food inspector said he did not regard it as worrying, while others involved said they would take a closer look at their peanuts. Another expert said levels were higher than would normally be expected because last year was "disastrous": a drought increased susceptibility to aflatoxins.

The most disturbing level, 296 ppb, was from a health food store in WA — in fact it was the only health food store sample to contain over 15 ppb.

The WA Health Department followed this up, taking more samples from the store. Although in subsequent samples aflatoxins were not detected, the health department was already sufficiently concerned about aflatoxins to be carrying out a further survey of contamination in its state.

According to our results, there is no more of a problem with peanut butter from health food shops than branded produce. In fact more samples from branded produce had high levels of aflatoxins.

Where do problem peanuts come from?

As consumers we rely on a chain of parties to deliver safe peanuts to us: growers, shellers, distributors, importers, inspectors, manufacturers and retailers. For instance, it is good practice for shellers and suppliers, as well as peanut butter manufacturers, to sample and analyse at several stages of production.

Inspection of peanuts coming into the country is strict. When a new company starts bringing peanuts into Australia, every shipment is inspected and sam-

NO CLUES TO COUNTRY OF ORIGIN

A PRODUCT can be labelled 'made in Australia' when its 'essential characteristics' are 'imparted' in Australia. Many people would logically expect the essential characteristics of peanut butter to be peanuts. We would agree. But some manufacturers argue that blending into a paste, for example, is what imparts peanut butter with its essential characteristics. Whether or not such an interpretation would stand up in courts, manufacturers are getting away with it — labelling peanut butter made from imported peanuts as 'made in Australia' when they grind and blend the peanuts in Australia.

This farcical situation means it is impossible to tell where peanuts have come from. Impossible to avoid ones from a particular country, should you want to. And impossible for us to trace back where the peanuts which caused aflatoxin contamination in our samples came from. Confusing the issue further, suppliers often top up a shortfall of Australian-produced peanuts with imported ones — again with no indication to the final purchaser.

'Made in Australia' labelling is under review — and it certainly needs to be. Whatever the final wording, we need powers of enforcement; the current situation is no help whatsoever for consumers.

ples taken, until it has a clear record of five consecutive clean shipments. One in four shipments is then sampled until 20 samples in a row are clear, then one in 20 is inspected. Shipments are prevented from entering the country, and usually destroyed, if they are found to contain over 15 ppb of aflatoxins. Recent failures include two shipments from India, one from Hong Kong (probably originating from China) and one from Indonesia.

As far as local produce goes, it's the state health authorities which have responsibility for monitoring and control. Generally speaking, peanut butter comes under programs which randomly sample products on the supermarket shelf. Activity varies from state to state — some, like WA, as mentioned above, are involved in programs to isolate aflatoxin problems; others have decided, after years of finding low aflatoxin levels, to decrease the frequency of sampling. Some states concentrate on their own produce, and rely on the inspection systems for peanuts in the states where they're grown.

Given current labelling regulations it was impossible for us to tell where the problem peanuts in our samples came from — and impossible to say whether Australian-grown or imported peanuts are more risky (see *No clues to country of origin*, left). But as one industry executive told us, "Peanuts are peanuts; wherever they're grown the same problems crop up." Suppliers and health authorities say in theory they should be able to track back a problem batch but we haven't seen this in practice.

MAINTAIN CONTROLS

Although we found several samples of peanut butter containing levels of aflatoxins over the permitted maximum, we do not believe there is a public health risk for Australians in this regard. But we certainly would not want to see a relaxing of control. It is essential inspection and sampling are maintained to isolate contaminated produce and catch manufacturers who don't have strict enough controls. ❑

AFLATOXINS: THE GLOBAL CONTEXT

OUR QUARANTINE AUTHORITY takes aflatoxin contamination of peanuts seriously — and not without reason. They are of high concern worldwide for their potential to cause serious liver damage. The risk is not restricted to peanuts: other crops susceptible include maize, rice and oilseeds as well as nuts. Aflatoxins in milk are also closely watched, as if mammals eat contaminated food, they may pass the aflatoxins on in their milk.

People most at risk are populations whose staple diet consists of one or more of these susceptible crops. For instance, the high temperature and humidity of Uganda means aflatoxin contamination of peanuts is a common problem. A study of schoolboys there found they consumed on average over half a kilo each of peanuts a week. Add these two facts together and you have a high risk of aflatoxin exposure.

The first reported incidence of aflatoxin contamination was in England in 1960, when a condition then labelled 'Turkey X' disease killed about 100 000 young turkeys and tens of thousands of ducklings and young pheasants. The first reported case in humans of what's known as acute aflatoxicosis — when a single large amount is sufficient to harm, as opposed to repeated lower amounts — was in Taiwan in 1967. Another was reported in 1974 in India, when 397 people in 200 villages came down with a severe liver condition. The sickness was traced back to aflatoxins in the maize which was their staple food and which had been drenched by torrential rains before harvesting. It killed over 100 people.

The chronic effect of aflatoxin exposure has been the subject of several population studies, although the fact that these effects take 10 to 20 years to develop makes studies more difficult. It is a risk factor in liver cancer: although no direct cause and effect relationship has been established, there is a general correlation between chronic aflatoxin exposure and liver cancer.

Although most reports of severe problems are confined to developing countries, a study in Sweden showed an increased risk for liver cancer for workers in grain mills. In Holland, workers in oil presses were found to have higher than expected levels of all cancers.

In the US in the 1970s, the population of the south-eastern states was at more risk from aflatoxin exposure than any other US region because of the combination of three factors: they ate more dry-milled maize products such as meal and grits; this maize was mainly locally grown; it also had the highest incidence of aflatoxin contamination in the US. Interestingly (for those concerned about peanuts) in this case, the risk from maize was so much greater than from peanuts that even if peanuts' legal limit for aflatoxins had been reduced to zero, it would have had little impact on the population's risk of exposure to aflatoxins.

According to Dr John Pitt of the CSIRO Division of Food Research, a disease called Reye's Syndrome, a common cause of death among children in South-East Asia, and kwashiorkor — both of which are usually attributed to nutritional deficiencies — may also be related to aflatoxin intake, though evidence is not conclusive.

Significantly, it is feasible to reduce aflatoxin exposure with strong controls. In 1972, 80% of shipments of pistachio nuts reaching the US from Turkey and Iran were detained for return or reconditioning; two years later, after voluntary control, aflatoxin contamination had been reduced to very low levels.

Insure your pay packet

Income protection or racket?

THEY'RE COMPLEX, CONFUSING and written in ambiguous language. Insurers insist most consumers need income protection insurance, but most income protection policy documents are far too complicated for ordinary people to understand, let alone to make comparisons between policies.

In this article we've attempted to make sense of the policies sold by the major players in the income protection insurance market. We've examined the core benefits of 24 policies to come up with recommendations for 15 'types' of consumer. But before you consult our buying guide on pages 28 and 29, read on to ensure you're aware of both the benefits and traps involved in buying income protection insurance.

Food on the table

What exactly is income protection insurance? It is usually sold by life insurance companies as a way of protecting yourself or your family from the kind of financial catastrophe that could engulf your life if you were off work due to an illness or injury. Most policies will pay an ongoing benefit for an agreed period, usually equal to 75% of your gross monthly income, if you become totally disabled and can't work.

This type of insurance is based on the belief that a continuing income stream is one of the most important assets a working person has. It's your income that supports every facet of your lifestyle, including your ability to put food on the table, pay your mortgage or save for the future. Insuring your income is at least as essential as purchasing a policy for any other valued asset, whether it be your car, house or life. The concept seems reasonable, but how good are the policies available on the market?

- What are the most important factors to look for when examining an income protection insurance offer document or policy?
- Do some policies have traps or undesirable attributes?
- Which policies are the most appropriate for your circumstances?

Are you a preferred customer?

Insurers will bend over backwards to sell you income protection insurance *provided* you're healthy, well-paid and in a low-risk occupation. After all, a primary goal of every insurance company is to make a profit. One way to stay profitable is to be selective about the 'type' of consumer a company insures in an attempt to limit the number of claims it might have to pay.

Insurers argue selling policies to individuals classified as 'high-risk' because of their occupation or health problems would lead to an increase in the number of claims they would have to pay, which would unfairly push up the costs of insurance for 'low-risk' policyholders. Most income protection insurance policies are, therefore, tailored to suit the needs of the low-risk white collar/professional end of the market — the most profitable niche for insurers. Consumers who have occupations considered high-risk will either:

- Find it difficult to get cover at all (see *D for decline*, right).
- Have to pay high — perhaps unaffordable — premiums, or
- Only be offered substandard policies (see *Guaranteed Renewable?* below).

Consumers with health problems will find it equally difficult to get *comprehensive* income protection insurance at an affordable price (see *The Nasty Bits* on page 26). Unfortunately it is people in these two groups who have the most need for the protection offered by this type of insurance.

Guaranteed renewable?

It is essential to purchase a guaranteed renewable policy. This means once you've purchased a policy, the insurance

THE POLICIES

SURVEYS were sent to 20 life insurance companies, requesting copies of their brochures and insurance contracts in addition to a comprehensive questionnaire covering key aspects of their policy. Insurers were also asked to calculate premiums for the 15 customers included in our Buying Guide on pages 28 and 29. Companies were chosen from the Insurance and Superannuation Commission's Quarterly Statistical Bulletin (March 1993), on the basis that they were the insurers with the highest number of income protection/disability policies in force at that time.

The following companies declined to participate in our survey, and as a result, their policies could not be assessed: Sun Alliance Life Assurance and Zurich Australian Life Insurance.

The policies assessed to come up with the list recommended in our Buying Guide were:

AMPAC Westpac, **AUSTRALIAN CASUALTY AND LIFE Professional** and **Income Replacement**, **GIO, FAI Loss of Income** and **Super Protector**, **LUMLEY**, **NORWICH UNION Advantage Gold** and **Advantage Blue**, **COLONIAL MUTUAL**, **PRUDENTIAL Executive**, **MERCANTILE MUTUAL**, **NATIONAL FINANCIAL MANAGEMENT**, **MLC Professional** and **Guaranteed Renewable**, **OCEANIC**, **LEGAL AND GENERAL**, **AMP**, **AIA, TYNDALL**, **NATIONAL MUTUAL Income Protection**, **Vital** and **Indexed, FRIENDS PROVIDENT/TOWER LIFE.**

D FOR DECLINE

ALL OCCUPATIONS are not equal in the eyes of the insurance underwriter. In fact, there is an extensive list of occupations that most insurers won't cover at all. The following occupations were rated **decline** or **uninsurable** by at least one of the companies in our survey. That means if you approached an insurer to purchase a policy, you would probably be turned away on the basis that your occupation is considered too risky to insure and could, therefore, prove too costly to the insurer, or the nature of your work makes it difficult to monitor claims. While the list contains some occupations that are obviously dangerous, like explosives workers, the element of risk is not as obvious with others. Some are excluded because of the seasonal nature of their work or because it's difficult to assess their income — for instance, if they work at home.

Occupations considered uninsurable by at least some companies include:

- Abattoir worker, actor/actress, aerial photographer, aerobics instructor, artist, assembly line worker, author, aviation industry flight personnel and air traffic controller.
- Bricklayer, backhoe/bobcat/bulldozer operator.
- Caravan park owner, cleaner (office, factory or school), composer, concrete contractor/labourer, courier, crane operator.
- Debt collector, defence force staff, diver, dock/waterside worker.
- Electrical linesman, elevator repairman, exterminator and fumigator, entertainer, explosives worker.
- Faith healer, fireman, fisherman (offshore), fruit picker, funeral worker (pallbearer, embalmer), furniture removalist (long-distance).
- Garbage collector.
- Horse trainer/breeder/strapper, harbour pilot.
- Insurance investigator.
- Jockey.
- Kitchen hand.
- Labourer, lifeguard (professional), log hauler.
- Meat packer, merchant seaman, mine worker, model, motor vehicle wrecker, musician (orchestral).
- Painter (above 5 m), police, Australia Post employee, prison officer, private detective.
- Railway worker, repossession agent, rigger, roof tiler.
- Security guard (armed), shearer, singer, sporting coach, swimming instructor or swimming pool attendant, stockman/station hand.
- Tanker driver (long-distance), tow-truck driver.
- Window cleaner (above 5 m).

NO PROBLEMS, EXTRA BENEFITS

LUCY DAVIS of Murdoch, WA, has had an income protection insurance policy with Tyndall Life for almost four years. She had to make a claim under the policy last July when she required emergency surgery to correct a slipped disk in her lower spine.

"With my income protection policy, although I have a 14-day waiting period, I have an extra benefit whereby Tyndall pays a percentage of my monthly benefit for every day that I'm confined to bed, both in and out of hospital. This was paid even during my 14-day waiting period," says Lucy.

"I was off sick for a total of nine weeks, during which my Tyndall payments arrived promptly and always with courteous, friendly letters attached. All my phone calls to Tyndall (on their 008 number) were received with friendliness and prompt responses to my queries," she says.

According to Lucy, the efficiency of the insurance company meant she didn't have any problems with paying bills and day-to-day expenses while she was absent from work. She says having income protection insurance meant her illness was "definitely stress-free".

Lucy was a healthy 26-year-old when she applied for the policy and Tyndall took five working days to approve her cover.

Her work as a nursing sister exposed her to the plight of people who become disabled but don't have any income protection insurance and gave her the incentive to purchase an insurance policy. "For years I saw people lying in hospital beds saying how will I pay the mortgage? How will I cope? What will I do?" she says.

"I really can't say enough good things about Tyndall's handling of my insurance claim."

company is obliged to renew it each year until the stated expiry date, regardless of whether your health or occupation changes. All the policies recommended in our Buying Guide are guaranteed renewable. However, quite a few companies still sell *cancellable* policies, particularly to people in high-risk occupations or with medical problems.

A cancellable policy gives the insurance company the right to alter your contract after its commencement date. If your circumstances change, there is nothing to stop a company from refusing to renew a cancellable policy at its next anniversary date.

It's not always clear from reading a policy whether it is cancellable or guaranteed renewable. If you cannot find the two words — **guaranteed renewable** — in a policy document, we strongly recommend you don't buy it. Avoid policies which contain words like "yearly renewable" or "cancellable at our option".

If you have an existing policy, check it's guaranteed renewable. If you discover it's cancellable, talk to the insurer, as some companies will upgrade outdated policies for existing customers. If you can't get an upgrade, it's time to start shopping for new insurance (see *Now where did I put that...* on page 27 for more information about how to use this article if you already have an income protection insurance policy).

If insurers won't sell you anything but a cancellable policy because of your occupation or health, you will need to carefully weigh up the costs and benefits of such a purchase. Will it be worth paying premiums for a decade if your policy is cancelled when your circumstances change? Would you be better off self-insuring: saving the equivalent of the policy premiums in a low-risk investment that you could cash in if you were unable to work? Even if you go into a cancellable contract with your eyes open, it is unwise to rely on the benefits it may pay out as your sole source of income in a crisis. You may be badly let down if you do!

Disability, by any other name

A key feature of any income protection policy is the definition you will have to meet to qualify to receive benefits. In most policies this will be the **total disability** definition. There are people within the insurance industry who argue the differences between definitions are insignificant and unimportant. They say consumers should be selecting an insurance company on the basis of how it handles claims: does it pay a high percentage of claims and pay them promptly?

We agree consumers should be able to choose insurers on this basis. However, it is currently difficult for consumers to assess the claims handling practices of life insurance companies. The companies are under no obligation to inform the public about the percentage of claims they pay or their reasons for refusing to pay. In such an environment, a well-written contract with simple definitions that aren't ambiguous is the consumer's only protection if a claim is disputed. For this reason we placed importance on analysing disability definitions when we rated the policies.

There are significant differences between the definitions used in the 24 policies we analysed. **The best definitions** were those which stated that:

■ The total disability benefit will be paid if you are unable to perform the *important* duties of your normal occupation. Similar definitions include:

1. The normal duties of your usual occupation, or
2. The substantial and material duties of your normal occupation, or
3. At least one duty of your normal occupation.

The least attractive definition states that you must be unable to perform *each and every duty* of your usual occupation before you will be considered disabled. These words suggest consumers would not be considered totally disabled under this definition unless they couldn't perform every single duty. Some insurers claim that, in practice, they interpret this definition to mean they pay claims if the customer is unable to perform *any one* duty. Rather than perverting the meaning of everyday English in this way, these insurers should use the phrase "any one duty" in their policy documents.

■ Consumers should also avoid policies with two-tier definitions. Several policies state that for a specified number of years, total disability or loss of income will mean the inability to perform either each and every duty or the important duties

of your normal occupation, depending on the policy. After that time the definition changes, and to qualify for the continuation of benefits you have to be deemed unable to perform *any gainful occupation for which you are reasonably suited by education, training or experience*. This definition gives the insurance company discretionary power, after a number of years, to reassess a claim.

Several companies muddy the water by giving policyholders a choice of definition. They say policyholders can choose at the time of making a claim between a definition under which they must be unable to perform each and every duty of their occupation and one that says they must be unable to perform the important duties. This approach is too confusing. If the policyholder has to choose between the definitions at the time of the claim, they may make the wrong choice. If these companies were serious about offering the best possible policy, they would provide the better definition in the first place.

Partial disability

The definition used for the **partial disability benefit** usually mirrors a company's total disability or loss of income definition. Although some companies make claims to the contrary, all policies, except **FAI Loss of Income**, specify the policyholder must be totally disabled for a certain period of time *before* they will be eligible to receive a partial disability benefit. Some companies are honest enough to call this partial payment a *recovery benefit*.

Other policies place a limit on the number of years they're prepared to continue to pay a partial disability benefit. Usually they will only pay it for a maximum of two years. Consumers should choose a policy that doesn't have a maximum time limit for this benefit.

How much will you be paid?

The other key factor you need to understand before purchasing an income protection insurance policy is how **income** is defined for the purposes of calculating the benefit you're covered for. Most policies will base the benefit on 75% of your gross monthly income at the time you take out the policy (**GIO** will pay 80%), but what exactly do they mean by that word 'income'?

Which items *won't* be taken into consideration when calculating your income for the purposes of determining the level of benefits to be paid?

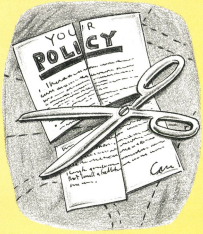
Most policies have a list of items called **offsets**: income from other sources which will reduce the benefits payable under your income protection insurance policy. Income from investments will not be included. Payments from social security, workers' compensation, sick leave, third-party insurance payouts, common law damages and payments from other income protection insurance policies may be offset against (used to reduce) any benefit payable under an income protection policy. Ask the insurer for a complete list of offset items before purchasing a policy.

The wording of some policies implies the income figures used to calculate claims can be varied and reduced at the insurer's discretion. These policies should be avoided. Look for an explicit statement in the policy to the effect that the value of benefits payable is an **agreed value** which can't be decreased when you make a claim, and check there is no limit on the agreed value. Some companies may require you to produce evidence to substantiate that you have indeed earned the amount agreed to under the policy before a claim will be accepted.

Salaried employees should check an insurer will include regular fringe benefits or 'package' items in its income calculations. Not all companies are willing to do this. For instance, the **AMERICAN INTERNATIONAL ASSURANCE (AIA)** policy specifies that income will be defined as *gross basic salary exclusive of overtime, commissions, bonuses and other allowances*. Most companies do include items such as regular overtime, school fees, car allowances, travel expenses, superannuation and loans. Some policies state income will be deemed to include *any other items relating to personal exertion, as determined by us*. If this is the case, make sure you get written verification of the salary package items they are prepared to cover under your policy.

You are purchasing income protection insurance for a relatively long term so it is important to check the amount you've insured for will be indexed to

DON'T STAY AT HOME AND PLAY WITH SCISSORS



LAST YEAR Greg's accountant suggested he should take out income protection insurance as his costume design business was showing a profit. Greg initially took out cover with MLC, paying $366.72 for the first year's premium on a basic policy.

"Seven weeks later I hadn't heard from MLC or their agent that they'd accepted me, so I rang and left a message with his secretary," says Greg. "I didn't hear from him but a week later his secretary rang back and said MLC head office in Sydney needed more information, details of my business and a copy of my tax return ... I sent the necessary details but decided it was time to try someone else."

Greg decided to try Legal and General but, to his surprise, it would not insure him.

"It seems I'm a high risk because I use scissors and a sewing machine, but mainly because I work from home. If I did make a claim they say it would be difficult to check on me to ensure I'm not defrauding them.

"I feel I'm being judged by the past experiences these insurance companies have had with the less honest sections of the community — for example, someone who has had an accident at work, claims insurance, then sets up a dressmaking business from home. I know insurance fraud is a problem but I'm only one of a new generation of small business people trying to make a living working from home either for lifestyle reasons or to keep costs down. Defrauding anyone is the last thing on my mind," he says.

MLC ended up refunding Greg's money and cancelling his policy because he failed to "supply outstanding requirements" — which Greg assumes means to pay an additional $100 the company requested in premiums. Greg remains sceptical about the real value of taking any insurance and his income remains unprotected.

"The main point I'd like to make is the injustice of it — self-employed people, trying to make a go of it, being discriminated against, whereas in fact I know I would be a minimal risk."

keep up with inflation. In addition, some policies offer automatic indexation of benefits, while others make indexation optional. The benefit is usually increased annually by the lower of the inflation rate (change in the Consumer Price Index) or a fixed percentage.

None of the policies in our survey rules out indexation of the amount of benefit payable once you are receiving benefits. However, this feature, which is usually called an **increasing claim benefit**, is optional under most of them, so you have to check that it's included in your cover. It is the only way to be certain the income you receive from the insurer keeps pace with the cost of living while you're off work.

Two, five or lifetime?

In addition to finding a policy which is guaranteed renewable and contains fair definitions of total and partial disability and income, you need to find one which will continue to pay disability benefits for the longest possible **benefit period**. Some policies are limited in the range they offer. For example, the AIA policy only has a five-year benefit period.

Other policies offer an array of choices. You can insure to receive benefits for one year or up to five years or you can nominate to continue to receive benefits, if you remain disabled, right up to age 55, 60 or 65. It is important to take out a policy which will continue to pay claims for the longest possible period you can afford — but choosing a longer benefit period will result in higher premiums. If possible go for coverage until age 65, but if your occupation is considered high-risk, you may have to settle for five years.

Some companies also offer 'lifetime' payments for some (usually white collar/professional) occupation classes. This option is not always as good as it sounds. For instance, with some policies, if you become disabled after a certain age (say 55), the benefit you receive will be scaled down from 100% to 80% and so on, as the years pass. It is a misconception to think purchasing a 'lifetime' benefit period will always mean you receive the full benefit amount until the day you die. Check the exact meaning carefully.

How long can you wait?

These policies offer a range of qualifying or waiting periods. The waiting period determines how long, after becoming disabled, you will have to wait before the company will commence payment of benefits. Waiting periods vary from 14 days up to two years in the policies we assessed. Again, not all waiting periods are available to all classes of customer and a shorter waiting period will cost you more than a longer one.

Before selecting a waiting period, consider how quickly your other sources of income will run out if you're unable to work due to illness or injury. Self-employed people may not have sick pay or annual leave to fall back on, so they should consider nominating the shortest possible waiting period (preferably 14 days). Employees, on the other hand, may choose to use up other sources of income like sick leave or holiday pay before starting to rely on their insurance benefits.

The nasty bits

We scrutinised each policy to identify unfair exclusions and unnecessary or confusing clauses.

- Some policies place restrictions on the payment of benefits if you are travelling or residing overseas. For example, AMP and NATIONAL MUTUAL will only continue to pay benefits for a maximum of three months while you're overseas.
- If you resign or are retrenched from your job, some policies will terminate your coverage after a very short period of time, even if you continue to pay premiums.
- The companies also vary in the way they approach providing coverage for HIV or AIDS. Some policies automatically provide full cover for it. Others allow customers the option of excluding HIV/AIDS cover, which results in premiums being cheaper. Check the policy you're thinking of buying suits your circumstances.

We also wanted to find out how the companies selling income protection insurance cater for consumers with pre-existing medical conditions. Seven of the scenarios in our Buying Guide are based on customers with some type of health problem. All companies say they assess individuals with pre-existing medical conditions on a case-by-case basis. You may be required to undergo medical examinations and tests or supply medical reports about the nature and severity of your condition. If it is deemed to be serious enough, your application for insurance will probably be declined.

If your application is accepted, insurers will usually structure your policy in one of two ways. If, for instance, you suffer from chronic back pain, you will:

- Have to pay a **premium loading** which will substantially increase the cost of your policy, and/or
- You will be sold a policy which has a **full back exclusion**. This means the policy will not pay benefits if your disability is caused by or related to the pre-existing or any other back problem.

Icing on the cake

Insurers pad out their policies with an array of ancillary features in addition to the core total and partial disability benefits. It's worth aiming to purchase a policy with some of these built-in extras.

Look for a policy with a **premium waiver**. This ensures that you won't have to continue to pay premiums once you're disabled and receiving benefits under the policy. All policies except GIO had this but they all expect you to continue to pay premiums during the waiting period. GIO doesn't have a premium waiver at all, claiming that because it pays 80% instead of 75% of gross income, the policyholder is capable of continuing to pay policy premiums.

Two other ancillary features which may be worthy of consideration are a nursing benefit and a rehabilitation benefit. The first provides for the payment of an extra benefit if you are confined to bed and need to pay for a nurse or home care. The second, which provides for the cost of a rehabilitation program, is offered as an incentive to get policyholders off benefits and back to work as quickly as possible.

Other benefits which may be included in a policy are: a death benefit, expense reimbursement benefit, scheduled injury benefit, a 'confined to bed' benefit (see page 24), spouse accommodation, transportation and ambulance cover. Don't buy an income protection insurance policy on the basis of the absence or presence of these attributes. It is essential to make sure a policy has the best possible core benefits. You should only start to consider the add-ons offered when you're fully satisfied with the total and partial disability benefits payable and when you've checked the policy's income definition and exclusions.

Consider the contract, then the cost

The premiums you will have to pay for income protection insurance will be dependent on many factors. Age, sex and smoking status are some of the basic determinants of price. Your occupation, the amount of income you're insuring, the benefit period, whether you're covered for HIV/AIDS and the waiting period you select also have a major impact on the amount you can expect to pay.

It is a mistake to buy an income protection insurance policy because it's the cheapest or happens to be offering a discount off the first year's premium or a no-claim bonus. Make sure you're happy with the contract first: make a short-list of the policies with satisfactory conditions and benefits, and then start to compare those policies on the basis of premiums.

CONCLUSIONS

Income protection insurance enables you to insure your lifestyle against the possibility that you could become injured or sick and be unable to earn an income. There are major differences between currently available income protection insurance policies. Your age, sex, health and occupation will determine the type of cover you will be able to buy and the price you will have to pay.

Consumers should aim to purchase a policy with the following attributes:

- Guaranteed renewable (see pages 23–24).
- A total disability definition which ensures you will be eligible to receive benefits if you are unable to perform the important duties or the normal, substantial and material duties or any one duty of your normal occupation (page 24).
- A partial disability definition which requires the policyholder to first be totally disabled for the shortest possible period and which does not cut out after two years (page 25).
- The amount of income you insure and the benefits should be indexed to keep up with inflation.
- Income should include salary package items or fringe benefits if you're an employee and the policy should have a minimal number of offset items (page 25).
- The benefit payable should be of an agreed value, not variable at the company's discretion (page 25).
- The longest possible benefit period, preferably to retirement age (page 26).
- A suitable waiting period, so that you will start to receive benefits as soon as you need to after becoming disabled. This is particularly important if you're self-employed (page 26).
- No unnecessary exclusions or confusing conditions (page 26).

Unfortunately not all consumers will be eligible to purchase a policy with all the above features. If you have a pre-existing medical condition or your occupation is deemed to be high-risk (see *D for decline* on page 23), for instance, insurers may place restrictions on the type of cover they are prepared to supply, and you will have to pay more for your insurance than a consumer with no pre-existing medical conditions and a low-risk occupation.

NOW WHERE DID I PUT THAT...

DO YOU ALREADY own an income protection insurance policy? If so, it's time to track down and brush the dust off your old policy document. Does it really provide you with the protection you need? Are you getting the best possible value for money from your existing policy?

■ Is it really income protection insurance?

Check you haven't purchased a **total and permanent disability (TPD)** policy. There is usually a TPD benefit attached to life insurance policies and superannuation funds. TPD is no substitute for comprehensive income protection insurance. It will only pay a lump sum benefit in the case of a *permanent* disability, when there is no chance of you recovering and returning to work. Some companies define total and permanent disability in a way which limits the usefulness of this benefit. TPD is cheaper than proper income protection insurance, because the chances of making a successful claim are very small. If you discover you only have TPD insurance, you should consider buying comprehensive income protection cover instead.

Some general insurance companies sell **sickness and accident** policies which are very similar to the income protection products sold by life insurance companies. The major drawback with the general insurance products is they can be cancellable at the discretion of the insurer (see below).

Check that the policy you've purchased covers both sickness and injury and that the payment of a benefit is not confined to illness/injury caused only by **accidental means**. Such policies are not comprehensive and are, therefore, inferior to the income protection policies recommended in our Buying Guide.

■ Is it competitive?

Income protection insurance contracts are renewed annually. Even if you have a comprehensive policy which appears to have all the essential features and conditions, it never hurts to review the coverage you have to ensure you're getting exactly what you need for the best possible price.

■ Is it cancellable?

Once you've established you have, in fact, purchased income protection insurance, you will need to check that your policy is **guaranteed renewable**. See pages 23-24 for more information about why cancellable policies should be avoided and what you can do if you discover your policy is cancellable.

Use this article to assess your existing income protection insurance contract. Does it have the best possible disability and income definitions? Does it contain any unfair conditions or exclusions? Do you have full cover for HIV/AIDS? If you're happy with all the benefits included, are you paying the best possible premium?

If you're not entirely happy with benefits or premium, you may be able to negotiate with your insurer to upgrade your coverage. Or you may decide to shop around for another policy. If you do decide to change policies, don't cancel your existing contract until your application for the new policy has been accepted and the new contract is binding on the insurer.

■ Do you have enough insurance?

Old policies may not have built-in **CPI indexation** of your insured income or an **increasing claim benefit**. Both features are essential to ensure the amount you're insured for and the benefits you receive if you become disabled keep up with inflation. See pages 25-26 for more information.Your age, sex, health and occupation will determine the type of cover you will be able to buy and the price you will have to pay.

■ Do you have too much insurance?

Some occupational and employer-sponsored superannuation funds also provide income protection insurance. If you've got a policy attached to your super, there's no point paying premiums on another contract. You only need one good income protection policy. There is no advantage to paying premiums on more than one policy because the **offset** provisions in most contracts mean you won't be paid a benefit if you're already receiving income from another insurer.

HOW TO USE THE BUYING GUIDE

TWENTY FOUR POLICIES were analysed to come up with our Buying Guide, and recommendations have been tailored to the requirements of 15 representative 'customers'. The insurance companies take so many factors into account when assessing premiums it's not possible to explain the reasons for the price differences here.

Select the customer with the description which is closest to your personal circumstances. Obtain copies of the customer information brochure for each of the policies recommended if you want to be certain they are appropriate to your needs. If you're satisfied with the benefits and contract conditions, ask for quotes — they won't be exactly the same as those below. Then choose the policy which supplies the best coverage for the lowest premium.

The following standard requirements were assessed for every customer (see the article for definitions of them):

- Definition of total disability.
- No time limit on partial disability payment.
- Is the policy guaranteed renewable?
- Is the income insured indexed to keep up with inflation?
- Will the benefit level be indexed to keep up with inflation while the benefit is being paid ('increasing claim benefit')?
- What age will the policyholder be when coverage expires?
- Is it an agreed-value policy?
- How is cover affected if you resign or you're retrenched?
- How does the policy approach coverage of AIDS/HIV?

In addition, specific policy benefits and conditions required by each customer are listed under **Specific requirements** in the Buying Guide.

Each policy was scored for each customer. Some recommended policies made it into our 'very good' category. Unfortunately, for some customers no policy scored this high. For them we've listed the highest-scoring policies which made it into our 'good' category. In both cases **we've listed the policies in rank order, with the cost shown separately**.

We have listed both the monthly premium for the first year and the total five-year cost of all recommended policies. Companies were asked to calculate premiums as they would for an 'ordinary' customer, including first-year discounts, indexation and no-claim bonuses.

■ Sandra (age 30) is a shift supervisor in a light-industrial factory. She doesn't smoke or have any pre-existing medical conditions. She is a full-time wage earner wishing to insure $1800 — 75% of her gross monthly earnings.

Specific requirements: Benefit period five years; waiting period one month.

Recommended policies	Monthly premium	5-year cost
The following policies rated 'very good'.		
TYNDALL	$61.20	$3671
equal **FAI Super Protector**	$37.29	$2172
equal **LUMLEY**	$85.60	$4918

■ Anthony (age 30) is a qualified chef (he is an employee). He has never smoked and has good health with no pre-existing medical conditions. He wants to insure $2000 — 75% of his gross monthly income.

Specific requirements: Benefit period five years; waiting period one month.

Recommended policies	Monthly premium	5-year cost
The following policies rated 'very good'.		
TYNDALL	$42.65	$2550
LUMLEY	$33.97	$1951
NORWICH Advantage Gold	$37.25	$2517
FAI Super Protector	$21.10	$1229

■ Rob is 32 years old and a professionally qualified engineer. He is a non-smoker — he gave up over a year ago but only ever smoked occasionally. He has good health with no pre-existing medical conditions. He wants to insure $2300 — 75% of his gross monthly income.

Specific requirements: Benefit period to age 65; nominated waiting period one month.

Recommended policies	Monthly premium	5-year cost
The following policies rated 'very good'.		
FAI Loss of Income	$27.08	$1577
TYNDALL	$35.23	$2189
LUMLEY	$27.44	$1641
NORWICH Advantage Gold	$31.87	$2229

■ Jim (age 30) is a real estate agent. He is a light smoker. He has good health with no pre-existing medical conditions. He wants to insure $2200 — 75% of his gross monthly income.

Specific requirements: Benefit period to age 65; nominated waiting period 14 days.

Recommended policies	Monthly premium	5-year cost
The following policies rated 'very good'.*		
FAI Loss of Income	$64.47	$3755
equal **LUMLEY**	$65.80	$3934
equal **TYNDALL**	$72.89	$4570
NORWICH Advantage Gold	$65.96	$4552
AUSTRALIAN CASUALTY AND LIFE Professional	$65.56	$3934

■ Andrew (age 30) is a qualified carpenter. He smoked for 10 years but gave up three years ago and has excellent health. He wants to insure $1800 — 75% of his gross monthly income.

Specific requirements: Benefit period five years; nominated waiting period 14 days.

Recommended policies	Monthly premium	5-year cost
The following policies rated 'very good'.*		
TYNDALL	$78.30	$4752
LUMLEY	$48.58	$2775
NORWICH Advantage Gold	$53.39	$3610
LEGAL AND GENERAL	$51.08	$3378

■ Diane is a 30-year-old receptionist. She is a social smoker (never more than two or three packets a week) and has no pre-existing medical conditions. She wants to insure $2000 — 75% of her gross monthly income.

Specific requirements: Benefit period to age 65; nominated waiting period 14 days.

Recommended policies	Monthly premium	5-year cost
The following policies rated 'very good'.		
equal **TYNDALL**	$97.39	$6120
equal **LUMLEY**	$95.71	$5722
NORWICH Advantage Gold	$88.13	$6087

■ Judith (age 30) is a dental technician. She doesn't smoke but suffers from lower back pain. She wants to cover $2500 — 75% of her gross monthly income.
Specific requirements: Benefit period to age 60; nominated waiting period 14 days.

Recommended policies	Monthly premium	5-year cost
The following policies rated 'very good'.		
TYNDALL	$98.14	$5997
LUMLEY	$94.80	$5517
NORWICH Advantage Gold	$94.49	$6495
LEGAL AND GENERAL	$110.52	$6631

■ George (age 40) is a computer programmer. He is a non-smoker and has no pre-existing medical problems. He wants to insure $2700 — 75% of his gross monthly income.
Specific requirements: Benefit period to age 65; nominated waiting period one month.

Recommended policies	Monthly premium	5-year cost
The following policies rated 'very good'.		
TYNDALL	$55.51	$3670
FAI Loss of Income	$53.33	$3106
equal **LUMLEY**	$45.01	$2778
NORWICH Advantage Gold	$48.69	$3614

■ Susan (age 40) is a general practitioner. She is a partner in a small private practice. She doesn't smoke. The only health problem she has ever encountered is an occasional migraine headache. She wants to insure $2900 — 75% of her gross monthly earnings after business expenses.
Specific requirements: Benefit period: lifetime; nominated waiting period 14 days.

Recommended policies	Monthly premium	5-year cost
Only one policy rated 'very good'.		
FAI Loss of Income	$158.12	$9210
The following policies were considered 'good'		
AUSTRALIAN CASUALTY AND LIFE Professional	$103.68	$6221
LEGAL AND GENERAL	$133.03	$7981
LUMLEY	$122.66	$7482
NORWICH Advantage Gold	$118.45	$8742
(Norwich and Lumley don't have lifetime benefit period)		

■ Alison (age 40) owns a hairdressing salon. She is a light smoker but is quite active and in good health. She wishes to insure $2200 — 75% of her gross monthly income.
Specific requirements: Beneift period five years; nominated waiting period 14 days.

Recommended policies	Monthly premium	5-year cost
Two policies rated 'very good'.		
equal **LUMLEY**	$229.68	$14080
TYNDALL	$157.02	$10315

■ Frank (age 40) is a retail butcher. He is a heavy smoker. Frank had kidney stones removed five years ago but has no other medical problems. He wants to insure $2500 — 75% of his gross monthly income.
Specific requirements: Benefit period five years; nominated waiting period 14 days.

Recommended policies	Monthly premium	5-year cost
Three policies rated 'very good'.		
TYNDALL	$120.30	$7887
LUMLEY	$108.75	$7200
NORWICH Advantage Gold	$162.52	$11825

■ Catherine (age 40) is a registered nurse with tertiary qualifications. She is a non-smoker. She has suffered from mild asthma since childhood but her condition is controlled. She wants to buy cover for $2300 — 75% of her gross monthly earnings.
Specific requirements: Benefit period five years; nominated waiting period one month.

Recommended policies	Monthly premium	5-year cost
Three policies rated 'very good'.		
equal **LUMLEY**	$40.68	$2470
TYNDALL	$87.00	$5698
NORWICH Advantage Gold	$83.54	$6183

■ Tim (age 40) is an accountant (heads his own private company). He is a light smoker and has suffered from high blood pressure for the past two years. Although this condition is being controlled by medication, a recent medical examination revealed slight kidney damage. He wants to insure $3400 — 75% of gross monthly income.
Specific requirements: Benefit period: lifetime; nominated waiting period 14 days.

Recommended policies	Monthly premium	5-year cost
Two policies rated 'very good'.		
equal **LUMLEY**	$120.99	$7475
NORWICH Advantage Gold	$106.97	$7800
(Norwich and Lumley don't have a lifetime benefit period.)		
Three policies rated 'good'.		
AUSTRALIAN CASUALTY		
equal **AND LIFE Professional**	$106.83	$6410
LEGAL AND GENERAL	$190.50	$11430
TYNDALL	$127.35	$8522

■ Rose (age 50) is a high-school teacher. She is a non-smoker. She is currently taking medication for high blood pressure but has no other pre-existing illnesses. She wants to insure $2500 — 75% of her gross monthly income.
Specific requirements: Benefit period to age 65; nominated waiting period one month.

Recommended policies	Monthly premium	5-year cost
The following policies rated 'very good'.		
TYNDALL	$195.90	$14415
LUMLEY	$164.37	$10566
FAI Loss of Income	$201.25	$11723
NORWICH Advantage Gold	$199.53	$15759

■ Gary (age 50) is a car salesman. He is a non-smoker but suffers from osteoarthritis in his knees, fingers and elbows. Gary would like to insure $2300 — 75% of his gross monthly income.
Specific requirements: Benefit period five years; nominated waiting period one month.

Recommended policies	Monthly premium	5-year cost
The following policies rated 'very good'.		
equal **TYNDALL**	$74.61	$6108
LUMLEY	$98.69	$7224
FAI Super Protector	$118.62	$6910
equal **NORWICH Advantage Gold**	$113.51	$9134

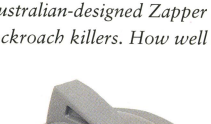
* AMP might have been recommended for Jim and Andrew but failed to provide comprehensive policy and premium information before our publication deadline, despite repeated requests.

THE ELECTRONIC COCKROACH ZAPPER

Is there an effective way to control cockroaches without pesticides? A new model of the Australian-designed Zapper has appeared since our last test of cockroach killers. How well does it work?

WITH WINTER'S cooler weather, perhaps your cockroach problem has subsided of its own accord. On the other hand, you may have found yourself besieged by *Blattella germanica* (German cockroaches — the little ones) intent on sharing the warmth of your kitchen, or harassed by big Americans (*Periplaneta americana*) taking refuge from the cold outside.

Since our test of cockroach killers published in November 1993, a new model of the Australian-designed ZAPPER has come onto the market. We didn't recommend the ZAPPER based on its performance in the last test, but as it doesn't use pesticides and thus claims environmental and health advantages over other cockroach killers, we decided to have a look at the new version.



The new Zapper: still not effective enough to control a serious infestation, but perhaps a long-term pesticide-free solution.

WHATS A ZAPPER?

The ZAPPER Electronic Cockroach Killer looks a bit like a dome-shaped flying saucer. It's not small (21.6 cm in diameter and 7.2 cm high), nor is it cheap (we paid $99.95 for the new model). It plugs into mains electricity via an adapter, and there's an optional rechargeable battery pack available if you want to use it where there's no mains power.

It works by using special 'food tablets' to lure cockroaches between two metal plates, where it can 'zap' them with an electric charge. The plates aren't charged continuously, but are turned on automatically for about 15 seconds every five minutes or so, catching any cockroaches that are inside at the time. If the zapped cockroach is a female carrying an egg case, the idea is that the eggs are also destroyed, thus knocking off up to 40 'potential' cockroaches in one fell swoop. The new CZ3 model is claimed to produce a higher-voltage charge than the one we tested last time. It also has different food tablets (brown instead of white), and you use two at a time instead of three.

There are three main advantages claimed for the ZAPPER. First, as we've said, it uses no pesticides; second, its performance doesn't degrade over time; and third, by trapping egg cases along with female cockroaches, it stops new cockroaches from hatching — it breaks the breeding cycle.

HOW WELL DOES IT WORK?

Our test used populations of both German and American cockroaches representative of an infestation in the home. We assessed the number of cockroaches trapped and killed by the ZAPPER over a 28-day period, with counts made daily during the first week, and then weekly. The test populations included a small number of adult females with egg cases and we were particularly interested in what happened to these.

Unfortunately, the ZAPPER consistently trapped less than 30% of the cockroaches available — not enough by itself to keep an infestation under control.

But what of the claim that the device also stops new cockroaches from hatching from the eggcases? Though limited in scope, the results were not encouraging here either.

Only half the American cockroach females with developed eggcases were caught by the ZAPPER, and of those which *were* caught, less than half still had their egg cases; the rest had deposited them elsewhere. (Unlike German cockroaches, which tend to carry their eggs until just before they hatch, American cockroach females will drop their egg cases earlier and attach them near food and water.) In fact, at the end of the 28-day test period there were enough American egg cases in the test chamber to produce hundreds of new cockroaches.

Among the German cockroach females caught, most were carrying egg cases, and any of these cases left after more than a week or two had shrivelled and dried out. However, the ZAPPER may not always kill very young cockroaches, a finding supported by an observation made earlier in the test: young were seen walking around inside the device just after it had been 'zapping'.

Of course, there were also females which weren't caught by the ZAPPER at all and whose eggs hatched happily outside. Newly hatched German cockroaches were observed in the test chamber from the second day of the trial.

All this indicates that, although the ZAPPER *is* capable of killing young cockroaches as well as adults, and *can* prevent them hatching in the first place, the rate at which it does this just isn't high enough to keep up with the prolific way cockroaches breed.

This means it's unlikely the ZAPPER will be able to control a serious infestation of cockroaches in the home.

IS IT WORTH THE INVESTMENT?

The ZAPPER CZ3 Electronic Cockroach Killer cost us almost $100. This is not an insignificant investment, although obviously it can be spread over the life of the unit. Unlike chemical methods where effectiveness decreases over time, our test results for the ZAPPER were relatively consistent over the four weeks of the trial — they didn't get better and they didn't get worse. New food tablets are an ongoing cost — about 14 come with the unit (at least six months' worth, based on our test), and we were quoted $15 for a bottle of 60, which would probably last several years.

We still can't recommend the ZAPPER as an effective cockroach treatment. But it is a pesticide-free alternative to sprays, bombs, mats and the like, and therefore has environmental benefits. You may decide this makes the investment worthwhile — at least it may help you get away with using chemical methods less frequently. ❑

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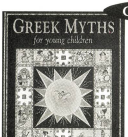

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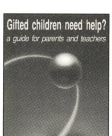

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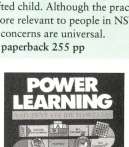

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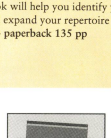

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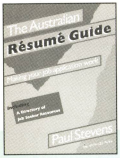

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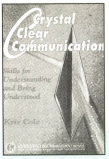

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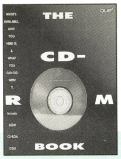

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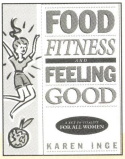

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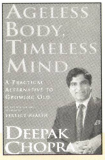

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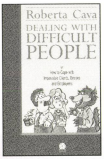

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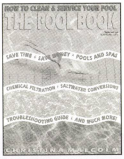
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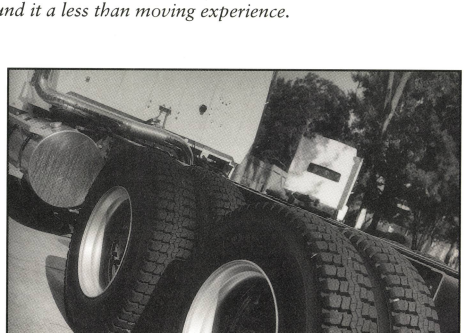
CONSUMER IN LAW

BAD DESIGN OR BAD MANUFACTURE — WARRANTY FAILS

Have you driven a Ford lately? One Victorian truck driver has, and found it a less than moving experience.

OPPROBRIUM — the *Macquarie Dictionary* defines it as 'the disgrace or the reproach incurred by conduct considered shameful', and the Ford Motor Company of Australia may deserve it, according to a Victorian Supreme Court Appeal judge. The conduct referred to involved the wording of its truck warranty, which came in for much criticism in a recent legal case and allowed Ford to leave one of its customers without a livelihood, the customer's bank $200 000 out of pocket and unanswered questions regarding the worth of Ford car and truck warranties.

The case involved a Ford LTL 9000 prime mover bought in 1989 by a Victorian truck driver, Joseph Minchillo. Mr Minchillo claimed the truck had been prone to excessive vibration and steering difficulties since new, which the dealer had been unable to fix. Mr Minchillo stopped using the truck because he considered it unsafe to drive. His Honour Justice McGarvie of the Supreme Court of Victoria, after hearing expert testimony, agreed. "I am satisfied that from the time it was supplied the prime mover was never of merchantable quality [under the Trade Practices Act] because it was prone to excessive vibration and difficulty in steering. It was not safe to use," he said.



Burden of proof

Given that the judge ruled the truck was faulty from new and that it was subject to Ford's manufacturer warranty, you'd be forgiven for thinking the lines of responsibility were clear. The finding that the truck was not of merchantable quality allowed Mr Minchillo to make a claim against the dealer who sold him the truck. Unfortunately for Mr Minchillo the dealer had since gone out of business.

The next step was the manufacturer. Because the court did not consider Mr Minchillo's truck in this case to be an ordinary consumer item under the Trade Practices Act, the only link with Ford was that set out in its new vehicle warranty, given to Mr Minchillo when he bought the truck.

Ford, however, was let off the hook because of the wording of its truck warranty, similar to that for Ford cars, which specifies coverage against parts "... which it finds to be defective in factory materials or workmanship under normal use and operation". The judge interpreted 'factory' materials or workmanship to mean defects in the manufacturing process — *not* defects in the design of the vehicle. Because the engineering evidence presented did not conclusively show the problems with the truck were due to faulty manufacture rather than design, the judge found that Ford was not liable to compensate the customer under the terms of its warranty contract.

A subsequent appeal upheld this ruling, but His Honour Justice Ormiston of the Supreme Court of Victoria, Appeal Division, was critical of Ford's warranty and was "... somewhat more concerned about the difficulties of proof imposed upon owners" in establishing that a problem arose out of faulty manufacture rather than design. In summary, he said

it would be up to an owner to prove that a defect in his or her car or truck was due to a manufacturing defect and not a design problem. This appears to mean that Ford, under its warranty contract, has no direct responsibility to consumers for faulty design.

Words fail them

Justice Ormiston also criticised the way the warranty was presented, saying, "The warranty itself is apparently intended to be 'user friendly' and is in large part expressed in non-technical language, but regrettably is none the easier to understand for that." He later concluded, "... the Ford company must suffer such opprobrium as can fairly be levelled at it for providing a restricted warranty, set out in the language which that company has chosen."

We asked Ford whether, in light of the judge's criticism, it had any plans to change its car and truck warranties. The company in reply said, "Having regard to the purpose and intent of the warranty, our experiences with our customers in relation to our administration of the warranty, and the excellent relationship which we believe we have with our customers, we see no need to change the wording of the warranty."

Hiding behind a technicality

While the legal ruling in the Minchillo case does not directly relate to ordinary consumer car purchases, we feel Ford has shown a considerable lack of commitment to its product and its customers. Here we have a situation where a company has designed and manufactured a product which a court has judged to be 'of unmerchantable quality' and, instead of paying up to its customer, the company has enjoyed the benefit of a technicality in the wording of its warranty and let its customer fend for himself. Ford's official line, despite the court's finding, is that it doesn't believe there is any problem, design or otherwise, with Mr Minchillo's truck and, therefore, doesn't believe he is entitled to compensation.

The principle involved here is that consumers are entitled to protection against goods which are not of merchantable quality. The mechanisms in place under the Trade Practices Act, Fair Trading Acts, etc, and common law provide a fallback position, but an explicit warranty should be unambiguous where a defect is found in a product, regardless of whether that defect was in design or manufacture. If a court decides that a defect exists the manufacturer should take responsibility for its product under the warranty and not sidestep the issue. ❑

The 13th CHOICE Subscriber Draw

For new subscriptions and renewals received July 1 to September 30, 1994

Subscriber draws are now held quarterly and on October 1 we'll be holding our thirteenth. The lucky winner will be able to choose any two products from the following tests, published January 1994 to March 1994.

- ☐ Car CD players (January 1994)
- ☐ Blenders (January 1994)
- ☐ 395-450 L refrigerators (February 1994)
- ☐ Clothes dryers (February 1994)
- ☐ Compact binoculars (March 1994)
- ☐ Toasters (March 1994)

Help with the renovations

Susan McCudden started subscribing to CHOICE three years ago when she and her husband decided to renovate the kitchen and laundry in their Sydney home. She found the product test information invaluable when choosing new appliances to go with the renovations. These are now long finished, but Susan is still subscribing and was surprised to find herself the winner of our 11th subscriber draw. As prizes she chose an **AEG** front-loading washing machine and an **AVANTI** hybrid bicycle.

Susan finds CHOICE "really interesting reading" and over her three years as a subscriber has made quite a few purchases based on our product test results. Apart from the tests Susan particularly likes the *Green Page*, but finds all the sections in the magazine a good read. We hope Susan and her family enjoy their prizes and CHOICE can help out with any future renovations.

These are products we bought for testing, so you won't be the first to turn them on or set them up. But we'll cover any service problems with a CHOICE warranty that'll match the manufacturers' — just as if you'd bought them new.

All new CHOICE subscriptions and renewals received from members and personal subscribers (including donors of gift subscriptions) by September 30 will go into the draw, unless of course you indicate you don't want to be included.

(If you're not due to renew your subscription during the period, don't worry, we'll be holding other draws during the year — your renewal notice will have the details. And if you're on a two-year subscription you'll be entered on your first anniversary as well as when you renew again.)

✍ Use the order form overleaf ☞

CONDITIONS OF ENTRY

1. The winner will be drawn from new subscriptions and renewals from personal subscribers (including members and donors of gift subscriptions) received July 1 to September 30, 1994. If you opt for a two-year subscription, you'll be entered on your first anniversary as well as when you actually renew or subscribe.
2. Information on how to enter and prizes forms part of these conditions of entry.
3. Employees, and their immediate families, of the Australian Consumers' Association and its associated companies and agencies are ineligible to enter.
4. Entrants must be residents of Australia.
5. Applications are subject to a verification check and the judge's decision is final. No correspondence will be entered into.
6. The prizes will be delivered free anywhere within Australia.
7. Prizes cannot be taken as cash.
8. South Australian residents may enter the draw by completing the form and posting to: Reply Paid No. 24, ACA, 57 Carrington Road, Marrickville 2204, without subscribing to the magazine. Only one entry per person is permissible through this method.
9. Last date for receipt of entries to the draw is September 30, 1994. No responsibility accepted for lost, late or misdirected mail.
10. The draw will be conducted at the office of the Consumers' Association at 10 am on October 4, 1994.
11. The winner will be notified by letter and published in the December 1994 issue of CHOICE magazine.
12. The promoter is Australian Consumers' Association, 57 Carrington Road, Marrickville 2204.
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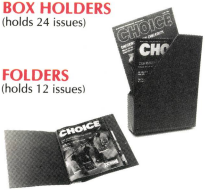

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Straight to the point

To help you get the right person as quick as possible CHOICE has upgraded its te phone system. So here are two import numbers that will get you directly to t service you need:

Consumer Information Service:
(02) 559 98

For free help with a consumer problem, an update on past product tests.

Subscription Service: (02) 558 80

For enquiries about subscription or to or books from our Consumer Bookshelf.

Consumer Rights Advice

CHOICE operates consumer rights lines people having problems with a faulty p duct or a dispute with a service person. T lines set out what your basic rights are a what steps you can take to protect the These lines are also available in four l guages other than English — Vietname Arabic, Chinese and Turkish.

CHOICE Consumer Rights Advice:
0055 200
Advice in Vietnamese: **0055 200**
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Youth lines

A line specifically for young consumers, 'Ripped-off' Line, outlines your shopp rights as well as letting you know what can do if you run into problems with son thing you have bought.

Students can also call a resource lin find out where to get up-to-date informat on the consumer movement and the en ronment. These two topics are the m requested by students and teachers who r our Consumer Information Service.

CHOICE 'Ripped-off' Line — Advice for Young Consumers: **0055 200**
CHOICE Student Resource Guide:
0055 200

Product advice

A number of product lines also summa what to look for when you are buyin particular product. Brand-name recomm dations aren't included, however — th remain exclusive to CHOICE subscribers

CHOICE Washing Machine Advice:
0055 20
CHOICE Water Filter Advice: **0055 20**
CHOICE Baby Products Advice:
0055 20
CHOICE Safer Domestic Pest Control Advice: **0055 20**

Calls attract a rate of 55 cents per minu

THE CUTTING EDGE

We found real differences in our test of 15 small petrol and electric chainsaws. And an electric chainsaw may be just right for your job.

THE CHAINSAWS which replaced the axe and the two-man saw in Australian forests three to four decades ago were cumbersome, unreliable and dangerous. Today, chainsaws have come out of the forest and into the backyard as smaller, lighter, more reliable and more useful tools.

As the tools have changed so have the users. For many purchasers of the saws in this test it will be their first experience of using a chainsaw, and these small models are tools more likely to be found in a gardener's shed than in the back of a forestry worker's ute.

Modern chainsaws are powered either by highly developed two-stroke petrol engines or, in a more recent development, mains-powered electric motors. One thing which hasn't changed is that they are still very dangerous tools. Someone with many years in the industry told us, "A chainsaw is the most dangerous tool available in the hands of an inexperienced operator."

NOT FOR LUMBERJACKS

The saws we tested are at the low end of the price range — less than $500 for the petrol-powered saws and under $450 in the case of the electric models. To make it into the test all the saws also had to have a chain brake (see page 39), as we believe this is an essential safety feature. When there was more than one model of saw within a brand which met these criteria, we purchased the least expensive one.

Our market research told us saws in these price ranges make up the bulk of the consumer market; they're for tidying up your yard, lopping trees and cutting wood, not for felling large trees. Farmers would generally buy slightly larger models, while saws used in the forest may leave you little change from $3000.

Because these saws will often be used where mains power is available, we wanted to compare petrol and electric models. The advantages of lower noise and greater convenience make the electric saws a serious option as long as they perform well.

THE TESTS

We took the eight petrol and seven electric chainsaws to a property on the south coast of NSW and gave them a solid workout with three testers of varying experience in using this type of saw.

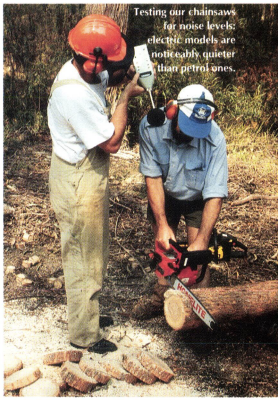
By the time testing finished the team had cleared heavy undergrowth around the house to reduce fire hazard, cut two years' supply of firewood and felled some dangerous, dying wattles near the house. They used the saws to dock sawn lumber and to make the basic joints used in the house and boat-building trades. Some bush carpentry was also tried and the team exercised their artistic skills sculpting some old tree roots.

Two weeks' solid work with these saws developed a powerful sense of which were easiest to use. Good balance, lack of vibration and easy-to-use, accessible controls were important. We also measured performance, such as the time taken to cut through logs of the same size and the noise level of the saws in operation. Models which scored well for performance were not necessarily among those easiest to use. For example, the petrol RYOBI was right up with the best for cutting, but was relegated to our 'not recommended' category because its ease of use was so poor compared with the other models.

FUEL FACTORS

You can't mix the fuel for these petrol-driven saws using car engine oil or use old sump oil for lubricating the chain. The high performance of these engines and the ever-increasing fuel/oil ratios mean you must use a good-quality two-stroke oil when mixing fuel. Similarly, modern saws supply less oil to the chain than previously and so require purpose-formulated chain oil which has ingredients that make it 'stick' to the bar.

Efforts are being made overseas to make these tools more friendly to the environment. Fuel/oil ratios are being made much leaner to lessen atmospheric pollution, biodegradable chain oil is being used and catalytic converters are being fitted to exhausts. Maybe we'll see these improvements available here soon.



Testing our chainsaws for noise levels: electric models are noticeably quieter than petrol ones.

When we started the field testing some of the petrol saws were hard to start and idled unreliably. In that initial period a number of them had to have slight adjustments made to get them to run reliably and smoothly. When you buy a saw make sure you can take it back after a few hours' use for a tune and adjustment.

ELECTRICS DO WELL

The big surprise in this test was just how well the electric chainsaws performed. They exceeded expectations by far and the top electrics can certainly match the top petrol models tested.

The electric models were generally easier to use, being mostly a little lighter, much quieter, virtually vibration-free and much easier to start. The power lead wasn't as much of a disadvantage as it can be with an electric lawnmower. A chainsaw is mostly used within a limited area and we found tangling or cutting the

Chainsaws

Brand/model (in rank order)	Manufacturer/distributor	Origin	Target price ($)*	Warranty (months)	Weight (kg)	1 Bar length supplied (cm)	Noise (dB)**
PETROL SAWS							
JONSERED 2036 Turbo	MTD	USA/Sweden	470	12	5.4	38	99
HUSQVARNA 36	Husqvarna Forest & Garden	USA	470	not stated	5.3	33	99
STIHL 009	Stihl	USA	430	12 *(A)*	4.9	34	100
McCULLOCH Pro-Mac 3205AV-14	Masport	USA/Mexico	420	12	5.5	34	98
McCULLOCH Eager Beaver 2014	Masport	USA/Mexico	350	12	5.2	34	97
HOMELITE 200 Classic	Homelite Textron	USA	460	*(B)*	4.7	40	102
SABRE 33	Homelite Textron	not stated	430	12	4.7	34	100
NOT RECOMMENDED BECAUSE OF POOR EASE OF USE							
RYOBI RGS3214A	Ryobi	Italy	390	12	4.4	35	108
ELECTRIC SAWS							
equal **HUSQVARNA** 1200	Husqvarna Forest & Garden	Norway	330	12	4.6	34	90
JONSERED 2015 EL	MTD	Norway	310	not stated	4.9	40	89
OLEO-MAC E 140 F	Parklands	Italy	290	12	4.2	34	91
POULAN 1400EL	Volta	Norway	300	not stated	4.3	33	91
MAKITA 5014	Makita	Japan	290	6	4.3	36	91
RYOBI HC-36A	Ryobi	Japan	200	12	3.8	36	91
BOSCH PKE 35 B	Robert Bosch	Germany	350	6	4.3	36	90

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in April 1994.

** At operator's position.

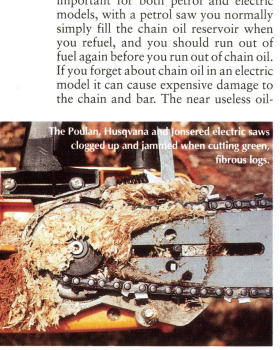
(A) 30 days on bar, chain and sprockets.

(B) No warranty supplied when purchased; distributor says the warranty is 12 months.

power lead was not the problem we had expected.

Electric models need a different operating technique to get the best from them. When cutting larger sections the bumper claws are used to 'work' the saw into the wood. These are a series of spikes at the base of the bar which grip the wood, allowing the saw to pivot and thus making the job easier.

You have to remember to keep the chain oil supply topped up. While this is important for both petrol and electric models, with a petrol saw you normally simply fill the chain oil reservoir when you refuel, and you should run out of fuel again before you run out of chain oil. If you forget about chain oil in an electric model it can cause expensive damage to the chain and bar. The near useless oil-level sight glasses provided on some saws don't help.



The Poulan, Husqvana and Jonsered electric saws clogged up and jammed when cutting green, fibrous logs.

Problems in use

On the **RYOBI** petrol model the metering of the chain oil was adjustable, but even when it was working on mid-setting it ran out of chain oil before the saw ran out of fuel. This is inexcusably poor design.

The **RYOBI** electric model had only a manually operated pump for chain oiling, which made it easy for the operator to inadvertently supply either too much or not enough oil to the chain.

The **HUSQVARNA, POULAN** and the **JONSERED** electric models (which were quite similar in appearance) clogged up around the drive sprocket on a number of occasions when cutting large green logs with fibrous bark. This caused the chain to jam. This problem didn't happen at any other time and we haven't downrated these saws because of it. However, we would advise you to buy a different electric saw if you intend cutting a lot of timber of this type. We suggest the **OLEO-MAC**.

But I only need it for a day

While some brands may have a well deserved reputation for longevity among professional users, this may not be so relevant for a chainsaw which spends most of the time hanging in a garage. If you only need a chainsaw occasionally for jobs that take just a few days, the saw should take many years to wear out.

In fact in this situation you might find the cost of buying even one of these small chainsaws hard to justify. At about $65 per day for a petrol model and $40 per day for an electric, hiring may be well worth considering. The hire companies we spoke to supply minimum safety equipment; make sure you get it and use it.

WHAT TO BUY

Our testing demonstrated real differences between models in both the petrol and electric categories. You will definitely be happier if you buy one from the top of the lists in the table rather than from the bottom.

If you don't have to move around much while working and are close to electric power, an electric model is worth considering because most are easier to use than petrol models — and in terms of performance they're serious chainsaws.

PETROL SAWS	
JONSERED 2036 Turbo	$470
HUSQVARNA 36	$470
STIHL 009	$430
ELECTRIC SAWS	
equal **HUSQVARNA** 1200	$330
JONSERED 2015 EL	$310
OLEO-MAC E 140 F	$290

Prices shown are a good target to aim for when shopping around, based on nationwide checks in April 1994.

2 se of use re (%)	3 Performance score (%)	4 Overall score (%)	Brand/model (in rank order)	
			PETROL SAWS	
	90	87	**JONSERED** 2036 Turbo	
	80	83	**HUSQVARNA** 36	
	90	78	**STIHL** 009	
	60	70	**McCULLOCH** Pro-Mac 3205AV-14	
	60	67	**McCULLOCH** Eager Beaver 2014	
	60	59	**HOMELITE** 200 Classic	
	60	58	**SABRE** 33	
			NOT RECOMMENDED	
	90	67	**RYOBI** RGS3214A	
			ELECTRIC SAWS	
	80	85	**HUSQVARNA** 1200	equal
	80	85	**JONSERED** 2015 EL	
	60	73	**OLEO-MAC** E 140 F	
	50	66	**POULAN** 1400EL	
	50	64	**MAKITA** 5014	
	50	63	**RYOBI** HC-36A	
	50	62	**BOSCH** PKE 35 B	

All the petrol models we tested had a throttle lock and a throttle lock-out — see *Safety*, below, for details.

1 Bar length supplied
Although these are only small saws they are more than adequate for almost any job around a backyard or small property. The 34 to 35 cm bar which is standard on most of them is long enough for any job these saws are suitable for.

2 Ease of use
This score was based on ease of using controls, handle comfort, overall balance, ease of starting, refuelling and vibration. All these aspects were weighted equally.

3 Performance
Performance was based on timed cutting through logs. The higher the score, the faster they cut right through. All models were used on logs of equal size and the average time for seven cuts was used.

4 Overall score
Performance and ease of use each make up 50% of the overall score.

SAFETY

ALTHOUGH added features and careful design have made chainsaws safer, they can still inflict horrible injuries. Everyone we spoke to who had any knowledge of chainsaws had something to say about how dangerous these tools are.

We obtained statistics which suggest there are a number of common situations leading to injury by chainsaw. These include 'kickback' of the saw, the operator's hand slipping while sawing, operators coming into contact with the chain after falling, and burns from petrol saws still hot after use. Interestingly, over half of all accidents happened in places under the heading of 'home/yard'. This may well be a reflection of user inexperience, unsafe practices and inadequate protective clothing.

Read and follow the recommendations about protective clothing and safe working practices that come with the saws. Eye protection and earmuffs are essential, and when lopping or felling trees a safety helmet is a must.

As with all electric power tools, use a safety switch (see CHOICE May '94) and a supply lead of at least 10 amp rating, taking care to unroll it fully. Leaving the lead coiled on itself may result in heat build-up, which can damage it.

Don't buy a chainsaw without a **chain brake**. This can be used to lock the chain when you're not actually cutting, and it should be activated when you start the motor. However, its most important function is that it stops the chain almost instantly if the saw 'kicks back'. Kickback is a sudden upward or backward movement of the bar which may occur when the tip of the chain touches a solid object.

Two saws, the **HOMELITE** and the **SABRE**, were also fitted with an anti-kickback bar tip. This is an attachment on the tip of the bar, but we found it to be a hindrance in use. There are many occasions when you need to use the tip for cutting, but more importantly this tip cover prevented the bar from being withdrawn straight backwards through the cut, as you often need to do when the cut starts to close on the bar. These saws, with small motors and short bars, exhibited very little kickback force and this could easily be controlled with a firm grip.

A **throttle lock** and a **throttle lock-out** feature are both essential safety features for petrol chainsaws and are required by the Australian Standard (though the Standard isn't mandatory). The throttle lock is used to keep the throttle partly open when starting. The throttle lock-out prevents the throttle being accidentally operated by the user, or more likely by catching on a stick when you're working in the bush. One petrol saw tested but no longer available (so we haven't included it in our table) had neither of these features. The result is a dangerous starting procedure: having no means to lock the throttle partly open when starting means you have to adopt a contorted and unsafe position.

Read the instructions

A chainsaw is a complex and dangerous tool and these small models are likely to be purchased by inexperienced users. The instructions therefore have to be comprehensive and cover maintenance (such as sharpening the chain), troubleshooting and adjustment, the types of oil and fuel to use and, most importantly, a good section on the safe operation of the tool. This should include information on safe operating practices and proper protective clothing. We found most of the saws tested had instructions which met these requirements.

If you use the saw frequently you'll need to sharpen the chain, which means buying a sharpening jig and learning how to use it. Shops which sell chainsaws will sharpen the chain but if you use it regularly this is likely to prove expensive.

The Forestry Commission of NSW sells an excellent book — *How to use a chainsaw safely*. You can contact them on (02) 980 4100.

Models are listed in rank order within type of chainsaw. Prices shown are a good target to aim for when shopping around, based on nationwide checks in April 1994. Anything lower is a bargain.

PETROL CHAINSAWS

JONSERED 2036 TURBO
Target price: $470
Overall impression
Equal best saw for cutting performance and very nice to use.
Good points
- Well balanced.
- Comfortable anti-vibration handle.
- Mostly good controls.
- Has a foot brace for easy starting.

Bad points
- A little difficult to see whether stop switch is on or off, due to plastic cover.

HUSQVARNA 36
Target price: $470
Overall impression
Good at cutting and very nice to use.
Good points
- Well balanced.
- Comfortable anti-vibration handle.
- Good controls.
- Has a foot brace for easy starting.

Bad points
- No tools supplied for maintenance, though the distributor says a combination spanner should have been supplied.

STIHL 009
Target price: $430
Overall impression
Equal best saw for cutting performance; OK for ease of use.
Good points
- Well balanced.
- Appears to want to keep cutting regardless of how much work you give it to do.

Bad points
- Grip must be released to operate the stop switch, which is contrary to the (non-mandatory) Australian Standard.
- Stop switch stiff to operate.
- No foot brace.
- No anti-vibration system.

McCULLOCH PRO-MAC 3205AV-14
Target price: $420
Overall impression
Cutting performance OK and nice to use.
Good points
- Well balanced.
- Comfortable anti-vibration handle.
- Good controls.
- Has a foot brace for easy starting.

Bad points
- Starting procedure a little more involved than for other models.

McCULLOCH Eager Beaver 2014
Target price: $350
Overall impression
Cutting performance OK. Appears to be the same saw as the **McCULLOCH Pro-Mac 3205AV-14** but without the anti-vibration handle.
Good points
- Well balanced.
- Comfortable handle.
- Good controls.
- Has a foot brace for easy starting.
- Carry case supplied.

Bad points
- Starting procedure a little more involved than for other models.
- No anti-vibration system; some vibration noticed.

HOMELITE 200 Classic
Target price: $460
Overall impression
Rated 'OK' for both cutting performance and ease of use.
Good points
- Only a small amount of vibration even though there is no anti-vibration system.

Bad points
- No foot brace.
- Not well balanced.

SABRE 33
Target price: $430
Overall impression
Rated 'OK' for both cutting performance and ease of use. Appears to be the same saw as the **HOMELITE 200 Classic**. The only visible difference is the **HOMELITE** has a primer bulb, while the **SABRE** doesn't, and our **HOMELITE** was fitted with a longer bar.
Good points
- Only a small amount of vibration even though there is no anti-vibration system.

Bad points
- No foot brace.
- No tools supplied for maintenance, although the distributor says a spanner should have been supplied.

NOT RECOMMENDED

RYOBI RGS3214A
Target price: $390
Overall impression
Equal best for cutting performance, but compared with the others it rated so poorly for ease of use that it dropped to our 'not recommended' category.
Good points
- Good cutting performance.

Bad points
- An uncomfortable, poorly balanced, tiring saw to use.
- Grip must be released to operate the stop switch, which is contrary to the (non-mandatory) Australian Standard.
- No foot brace.
- Very noisy.
- No anti-vibration system.
- Oil tank emptied before fuel tank, which may lead to chain and bar damage (see page 38).

ELECTRIC CHAINSAWS

HUSQVARNA 1200
Target price: $330
Overall impression
Good at cutting and very nice to use.
Good points
- Well balanced.
- Comfortable handle.
- Good controls.
- Virtually vibration-free.

Bad points
- Oil sight gauge practically useless.
- When cutting large, green logs with fibrous bark the area around the sprocket can clog, stalling the saw.

JONSERED 2015 EL
Target price: $310
Overall impression
Good at cutting and very nice to use. Very similar in design to the **HUSQVARNA 1200.**
Good points
- Well balanced.
- Comfortable handle.
- Good controls.
- Virtually vibration-free.

Bad points
- Oil sight gauge practically useless.
- When cutting large, green logs with fibrous bark the area around the sprocket can clog, stalling the saw.

OLEO-MAC E 140 F
Target price: $290
Overall impression
Cutting performance OK and nice to use.
Good points
- Well balanced.
- Good controls.
- Virtually vibration-free.

Bad points
- None in particular.

POULAN 1400EL
Target price: $300
Overall impression
Cutting performance only middling, but nice to use.
Good points
- Well balanced.
- Good controls.
- Virtually vibration-free.

Bad points
- Small oil filler hole and difficult to see oil level in sight gauge.
- Clutch slips fairly easily when loaded.
- Noise, while not louder than the others, is more annoying.
- When cutting large, green logs with fibrous bark the area around the sprocket can clog, stalling the saw.

MAKITA 5014
Target price: $290
Overall impression
Cutting performance only middling, ease of use OK.
Good points
- Well balanced.
- Good controls.
- Virtually vibration-free.

Bad points
- Uncomfortable handles, particularly when doing horizontal cuts.
- Small oil filler hole, and difficult to see oil level in sight gauge.

RYOBI HC-36A
Target price: $200
Overall impression
Cutting performance only middling, ease of use OK.
Good points
- Well balanced.
- Good controls.
- Virtually vibration-free.

Bad points
- Uncomfortable handle; not designed for horizontal cuts.
- Very small oil filler hole, and difficult to see oil level in sight gauge.
- Manually operated bar oil feed.

BOSCH PKE 35 B
Target price: $350
Overall impression
Cutting performance only middling, ease of use OK.
Good points
- Good controls.
- Virtually vibration-free.
- Oil sight gauge good.

Bad points
- Uncomfortable handle.
- Poorly balanced.
- Small oil filler hole.
- Oil leaked from breather hole in cap.
- Cut tends to run off (cut in a curve) unless care is taken to prevent it.

VACUUM CLEANERS

Less than $200 can buy you a good vacuum cleaner. Some models in this price range performed even better than the ones we tested last year, which cost about $100 more.

If you've followed our regular reports on vacuum cleaners, it won't come as a surprise that the only two upright models in this test were the best performers. Altogether we tested 19 vacuum cleaners at the lower end of the market, available for less than $200.

As well as excluding higher-priced brands and models, we also left out 'wet and dry' and handheld cleaners, as they're not directly comparable with ordinary vacuum cleaners. Some Aquavac, Panasonic, Moulinex and Sanyo models didn't get into the test because they will have been discontinued by the time we publish in July. On the other hand, there'll be some new models for less than $200 on the market, but they were released too late for inclusion in our tests.

Performance

The top-performing **EUREKA Bravo The Boss AU9334** not only came top overall, but achieved an extremely good dirt pick-up score of 72% — better than any vacuum cleaner we've tested for three years.

Both this model and the other upright **HOOVER Lark U1318** were at least twice as good at removing dust from carpet as the barrel or canister cleaners we tested, which confirms the superiority of the 'fan-before-bag' style of some upright cleaners. This design works by sucking the dust through the fan and blowing it into the bag, instead of sucking it through the bag first, with the fan positioned after the bag.

Another reason for the superior performance is the beater action of upright cleaners — brushes 'beat' the dust up from the carpet as well as using suction. Barrel and canister cleaners don't have this action

Design differences like these may explain why the barrel and canister cleaners we tested picked up only about half the dirt of the upright models, or even less — the worst performer could only manage to remove 11% of the dirt. Along with the two uprights, however, several barrel cleaners (the **PANASONIC** and **HITACHI** models and the **GOBLIN Laser 200-700**) achieved slightly higher scores for dust removal than the more

Some paper dustbags can be reused (right), some not.

expensive barrel models from our last test.

For different surfaces

On various types of carpet, the upright cleaners we tested were more versatile because their heads could be adjusted to suit different pile heights. On their lowest setting, most should also manage dust removal on tiled, wood or slate floors, but they're much noisier than on carpet.

For such surfaces, barrel or canister cleaners with retractable bristles are much more convenient. The bristles on the **PANASONIC MC-3500** and the **SANYO SC 10A** are fixed, however, and the **SANYO SC 53 GN (SC 53 DX)** and **SC 42** have air vents on their main suction head instead of bristles. Decreasing the suction by using these vents can influence how hard you have to push the cleaner over long-pile carpets, but it's really designed for use on curtains and loose rugs; if used on carpet it tends to reduce dirt removal dramatically.

Versatility and storage

If you have wall-to-wall carpet and lots of furniture on legs, you may find upright cleaners less suitable as they're difficult to move under low furniture and into small spaces. Some have accessories which can overcome that problem. The **EUREKA Bravo The Boss** and some of the barrel and canister cleaners (see the table overleaf) have them stored 'on board', a very handy feature.

With an upright cleaner, you'll also need accessories to vacuum the car or carpeted stairs. Barrel or canister cleaners are generally more convenient to use in confined spaces. Check how easy the vacuum cleaner is to carry before you buy. While barrel and canister cleaners are not necessarily lighter, some people might find them less awkward to carry, especially if they have retractable cords.

Storage space, or lack of it, is another aspect to consider when you choose between an upright and a barrel or canister cleaner. When not in use, upright models require a tall space in a cupboard or corner, whereas the hose and pipes of barrel or canister cleaners can be disconnected from the main body and need less height, though storage can still be cumbersome. The **PANASONIC MC-2750** and the **HITACHI CV-4700** have a conveniently placed hook which can hold the hose in place, if you have the tall space to store it upright.

Conclusion

The **EUREKA Bravo The Boss** upright was best at dirt removal. Compared with the second-best performing **HOOVER Lark U1318**, it presents better value for money as it comes supplied with a set of accessories, which are conveniently stored 'on board'. (You can buy optional accessories for the **HOOVER Lark.**) Among the barrel or canister cleaners, none in particular stood out. Check the table for scores and the profiles for details about features that might appeal to you.

We decided any cleaner that couldn't even manage a 25% score for dust removal should be relegated to our 'not recommended' category. After all, it's what you buy a vacuum cleaner for.

WHAT TO BUY

	EUREKA Bravo The Boss AU9334 (U)	$190
	HOOVER Lark U1318 (U)	$190
	If you want a barrel or canister cleaner:	
equal	**HITACHI** Super CV-4700	$180
	HITACHI CV-99 (C)	$180
equal	**HITACHI** CV-2500	$160
	PANASONIC MC-2750	$170

(U) Upright model, (C) canister (vertical barrel) model; all the others are horizontal barrel models.
Prices shown are a good target to aim for when shopping around, based on nationwide checks in April 1994.

EUREKA BRAVO THE BOSS AU9334
Target price: $190
Type: Upright.
Good points
- Best overall.
- Best at dirt removal.
- Tools (accessories) carried 'on board'.
- Adjustments for carpet height.

Bad points
- Difficult to assemble for initial use.
- Noisiest cleaner — by 1 dB only, but it seemed to be much more annoying than the noise the other cleaners made. The manufacturer informed us that an updated version to be launched later this year will have a low-tone muffler to reduce the noise level.
- Difficult to move under low furniture — as all upright cleaners are.
- Tools are not as easy to use as those for barrel or canister cleaners.

HOOVER LARK U1318
Target price: $190
Type: Upright.
Good points
- Second-best overall.
- Second-best for dirt removal.
- Disposable dustbags are reusable.
- Adjustments for carpet height.
- Very light for an upright cleaner.

Bad points
- No tools supplied (the brushes and nozzles listed in the table are available as optional extras, as are a hose, extension tubes and a floor brush).
- No provision for carrying tools.
- Difficult to move under low furniture — as all upright cleaners are.

HITACHI SUPER CV-4700
Target price: $180
Type: Barrel.
Good points
- Equal highest overall score of the barrel and canister cleaners.
- Good ease of use score.
- Tools carried 'on board'.
- Dustbag-full indicator.
- Easy to operate foot controls.

Bad points
- No upholstery nozzle supplied.

HITACHI CV-99
Target price: $180
Type: Canister.
Good points
- Equal highest overall score of the barrel and canister cleaners.
- Dustbag-full indicator.
- Tools carried 'on board'.

Bad points
- The top of the canister, which has to be lifted to empty the dust collector, is quite heavy.
- Cord does not rewind automatically.
- No upholstery nozzle supplied.

HITACHI CV-2500
Target price: $160
Type: Barrel.
Good points
- Reasonable dirt removal score for a barrel or canister cleaner.
- Dustbag-full indicator.

Bad points
- No upholstery nozzle supplied.

PANASONIC MC-2750
Target price: $170
Type: Barrel.
Good points
- Reasonable dirt removal score for a barrel or canister cleaner.
- Tools carried 'on board'.
- Dustbag-full indicator.
- Can be used as a blower.
- Easy to operate foot controls.
- Disposable dustbags are reusable.

Bad points
- No upholstery nozzle supplied.

PANASONIC MC-4500
Target price: $170
Type: Barrel.
Good points
- Best performer of the barrel and canister cleaners for dirt removal.
- Dustbag-full indicator.
- Can be used as a blower.

HITACHI CV-180
Target price: $110
Type: Canister.
Good points
- Good ease of use score.
- Dustbag-full indicator.

Bad points
- The top of the canister, which has to be lifted to empty the dust collector, is quite heavy.
- Cord does not rewind automatically.

Vacuum cleaners

	Brand/model (in rank order)	Manufacturer/ distributor	Origin	Warranty (years)	Target price ($)*	Weight (kg)	1 Dust collector	2 Carpet/floor adjustment	3 Crevice nozzle supplied	3 Upholstery nozzle supplied	3 Dusting brush supplied
	EUREKA Bravo The Boss AU9334 (U)	Eureka	USA	2	190	6.1	Paper bags	✓	✓	✓	✓
	HOOVER Lark U1318 (U)	Hoover	Australia	2	190	5.2	Paper bags *(B)*	✓	optional	optional	opt
equal	**HITACHI** Super CV-4700	Hitachi	Singapore	2	180	6.4	Cloth bag *(D)*	✓	✓		✓
	HITACHI CV-99 (C)	Hitachi	Singapore	2	180	6.5	Filter unit	✓	✓		✓
equal	**HITACHI** CV-2500	Hitachi	Singapore	2	160	5.4	Filter unit	✓	✓		✓
	PANASONIC MC-2750	Panasonic	Malaysia	1	170	6.2	Paper bags *(B), (E)*	✓	✓		✓
equal	**PANASONIC** MC-4500	Panasonic	Malaysia	1	170	5.7	Filter unit	✓	✓	✓	✓
equal	**HITACHI** CV-180 (C)	Hitachi	Singapore	2	110	5.2	Filter unit	✓	✓	✓	✓
	PANASONIC MC-3500	Panasonic	Malaysia	1	150	5.4	Filter unit		✓	✓	✓
	GOBLIN Laser 200-700	Shop Vac	Poland	2	190	7.8	Paper bags *(E)*	✓	✓	✓	✓
	NOT RECOMMENDED (less than 25% dirt removal)										
equal	**SANYO** SC 10A	Sanyo	Mexico	2 *(A)*	100	3.9	Filter unit		✓		
	EUREKA The Boss C30	Eureka	Australia	2	170	6.6	Paper bags	✓	✓	✓	✓
	EUREKA Express C20	Eureka	Australia	2	150	6.7	Paper bags	✓	✓	✓	✓
equal	**HOOVER** Hotshotz SC254	Hoover	Australia	2	180	6.1	Paper bags *(B), (E)*	✓	✓		✓
	EUREKA Powerline Electronic C40	Eureka	Australia	2	180	6.7	Paper bags	✓	✓	✓	✓
equal	**HOOVER** Hotshotz SC028	Hoover	Australia	2	180	6.1	Paper bags *(B), (E)*	✓	✓		✓
	SANYO SC 53 GN (SC 53 DX)	Sanyo	Japan	2 *(A)*	180	5.5	Paper bags	✓ *(F)*	✓		✓
	GOBLIN Rio 31018	Shop Vac	Ireland	2	130	4.9	Paper bags	✓	✓		✓
	SANYO SC 42	Sanyo	Mexico	2 *(A)*	170	5.8	Paper bags	✓ *(F)*	✓		✓

U – Upright model **C** – canister (vertical barrel) model. All the others are horizontal barrel cleaners.

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in April 1994.

(A) One year for tools and hose.
(B) Reusable
(D) Paper bags optional.
(E) Cloth bag optional.
(F) Air vents.

FOR PEOPLE WITH DISABILITIES

THE SCORE in the table gives a general indication about the ease of use of the vacuum cleaners we tested. For people with a physical disability, we had them assessed by an occupational therapist from the Independent Living Centre. She looked in particular at the controls, manoeuvrability and dustbag (or dust collector unit) removal.

If a bad back is your problem, you'd probably be better off with an upright cleaner, as it requires less bending than other types. The uprights we tested were also better at dirt removal and thus reduced the overall time and effort spent vacuuming. The **HOOVER Lark U1318** measured up well: it's quite light, its dustbag is reasonably easy to change, and its on/offcontrol is easy to see and to press — it's up near where you hold the cleaner and doesn't require the balance which some foot controls need.

If you're looking for a barrel cleaner, the **SANYO SC 10A** is also suitable for people with back problems. It's light and compact enough to be used by people in a wheelchair, who could possibly drag it behind them or place it on their laps. Unfortunately, it had particularly poor dirt removal performance at only 18%.

It's also important that the dustbag or filter unit can be removed easily. On some models we tested this required some effort; you'd better check when you buy. On the three **EUREKA** barrel cleaners, the dustbags are easier to change than any of the others we tested, and their controls are very large and easy to press — a plus for people with dexterity problems. Again, though, their dirt removal performance wasn't up to much.

Comparable models

■ We tested the **HOOVER Hotshotz SC028**, which has a retractable cord and a dustbag-full indicator. This cleaner has two technically similar models: the **SC026**, which has no bag-full indicator, and the basic **SC024**, which has neither of the above features.

■ According to the manufacturer, the **SANYO SC 53 GN**, which we tested, only varies in colour from the **SC 53 DX**, so we've included both in the table.

■ We tested the **GOBLIN Laser 200-700**. According to Shop Vac, the **GOBLIN Laser 201** is technically identical, but has four electronic controls to vary the power used.

1 Dust collector

Vacuum cleaners either collect the dust in paper or cloth bags or in a filter unit. If you're sensitive to dust, disposable paper bags are most convenient, as you'll be least exposed to dust particles when you change the bag. But you have to remember to buy them regularly (sometimes they're available in certain shops only), and they can be quite expensive. Reusable bags, which can be used more than once before disposal, might work out cheaper — and generate less waste. As with cloth bags, however, they scatter more dust around when you empty them.

storage	Retractable cord storage	4 Dustbag-full indicator	5 Blower	6 Power consumption (kW)	Noise (dB)	7 Dirt removal score (%)	8 Ease of use score (%)	9 Overall score (%)	Brand/model (in rank order)	
				0.94	82	72	70	71	**EUREKA** Bravo The Boss AU9334 (U)	
				0.45	81	61	71	65	**HOOVER** Lark U1318 (U)	
	✓	✓		0.96	71	29	76	48	**HITACHI** Super CV-4700	equal
		✓		0.77	67	29	75	48	**HITACHI** CV-99 (C)	
	✓	✓		1.00	68	30	73	47	**HITACHI** CV-2500	equal
	✓	✓	✓	0.97	72	30	72	47	**PANASONIC** MC-2750	
	✓	✓	✓	1.11	73	31	70	46	**PANASONIC** MC-4500	equal
		✓		0.61	68	26	76	46	**HITACHI** CV-180 (C)	
	✓	✓	✓	0.96	72	26	65	42	**PANASONIC** MC-3500	
	✓	✓		1.12	71	27	52	37	**GOBLIN** Laser 200-700	
									NOT RECOMMENDED (less than 25% dirt removal)	
				0.61	66	18	77	41	**SANYO** SC 10A	equal
	✓			0.97	78	23	67	41	**EUREKA** The Boss C30	
	✓			0.80	78	21	67	40	**EUREKA** Express C20	
	✓	✓		0.92	78	19	65	37	**HOOVER** Hotshotz SC254	equal
	✓			0.74	77	17	67	37	**EUREKA** Powerline Electronic C40	
	✓	✓		0.95	73	16	65	35	**HOOVER** Hotshotz SC028	equal
	✓	✓	✓	1.13	75	20	58	35	**SANYO** SC 53 GN (SC 53 DX)	
		✓		0.94	73	15	62	34	**GOBLIN** Rio 3101B	
	✓	✓		1.10	70	11	55	29	**SANYO** SC 42	

In filter units the dust is collected inside the barrel or canister, next to the hose inlet. Emptying and cleaning such a unit inside a flat would be rather messy: the dust has to be shaken out of the collection area and the cloth or plastic filter, sometimes with the aid of a special tool. However, if you have a garden or easy access to a dirt patch where the dust doesn't bother your neighbours, cleaning a filter unit would be less of a problem.

2 Carpet/floor adjustment
The two upright cleaners we tested could be adjusted — with five and seven settings respectively — to match various carpet heights. Adjustment works by lowering or raising rollers under the vacuum cleaner, which in turn alters the distance between the floor and the suction area. All but two of the barrel cleaners had some provision to adjust from vacuuming carpeted to hard floors. Most had a main head with bristles, which could be retracted for use on carpet; two had air vents for this purpose, to reduce the suction. This tends also to reduce dirt removal.

3 Accessories
Basic tools such as a crevice nozzle, dusting brush and upholstery brush are useful for cleaning hard-to-get-to areas, cloth-covered furniture and curtains. They're even more useful if they're stored 'on board'. The upright **HOOVER Lark U1318** comes without any tools, but you can buy a set separately.

4 Dustbag-full indicator
While it's useful to have some indication of how full the dustbag is, the performance of the cleaner decreases with the amount of dirt in the bag, so we'd recommend regular emptying anyway.

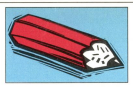
5 Blower
With some cleaners you can attach the hose to the exhaust, which gives you a 'blower' facility — useful for clearing blockages in the hose, blowing leaves off surfaces and inflating airbeds and the like.

6 Power consumption
Power consumption of the cleaners varied significantly, but our tests showed that it had no effect on performance. For example, the barrel cleaner with the lowest dirt removal score (the **SANYO SC 42**) recorded one of the highest power consumption levels, whereas the **HOOVER Lark U1318**, with the lowest power consumption, came second-best in dirt removal.

7 Dirt removal score
We rubbed 100 grams of specially made dirt into a section of carpet and vacuumed it eight times to a set pattern and at a set speed. We then measured the weight of the recovered dirt and noted it as a percentage. After doing this three times, we averaged the results.

8 Ease of use score
The ease of use score is based on how easy it was to: move the head over carpet, vacuum under low furniture, around edges and in corners; and use the accessories and the on/off switch. We also considered whether accessories were stored 'on board' and how easily the cleaner could be transported when not in use.

9 Overall score
We calculated the overall score by weighting performance for dirt removal, ease of use and instructions as follows:
- Dirt removal: 60%.
- Ease of use: 35%.
- Instructions: 5%.



WHAT DO YOU KNOW?

1 According to the international record industry, what percentage of CDs currently being sold in Hong Kong are pirate copies?
A) 2%
B) 20%
C) 90%

2 The number of people killed in aeroplane accidents in 1992 was:
A) 14
B) 142
C) 1422

3 The Warsaw Convention is:
A) An agreement between international airlines on compensation payments to the victims of plane disasters.
B) An agreement between the Polish government and trade unions similar to the Australian wages accord.
C) A military alliance between formerly communist European states.

4 Healthy bones and teeth need Vitamin D, which you can get from tuna and sardines. The most common source for Australians, however, is:
A) Prawns.
B) Beer.
C) Our own skin when exposed to sunlight.
D) Meat pies.

5 Macular degeneration is:
A) A form of data processing technology patented by Apple and copied by others.
B) An eye condition caused by the breakdown of the retina due to aging.
C) A dietitian's nickname for malnutrition caused by over-indulgence in fast foods.

6 Of the thousands of chemical compounds in tobacco smoke, how many are known or suspected to cause cancer?
A) 5
B) 15
C) 50

7 The tobacco industry in the USA has an annual income of approximately:
A) $US480 million
B) $US4.8 billion
C) $US48 billion

8 If you buy goods from a door-to-door salesperson and they turn out to be defective, you have no right to return them and obtain a refund as you do when buying from a store.
True or false?

9 An Australian study showed that emissions from vehicles using LPG were nearly double those of cars running on petrol.
True or false?

10 When you call the 000 emergency number your phone number and address are automatically registered with the operator.
True or false?

ANSWERS

1. B. The International Federation of the Phonographic Industry estimates that China alone currently has capacity to produce 70 million CDs a year, but only about five million are bought there. The rest of these counterfeits flood onto international markets.
2. C.
3. A. After initially insisting that passengers fly at their own risk, the airlines agreed to be liable for limited damages arising from plane crashes at a meeting in Warsaw in 1929. At the time the limit was set at $US10 000 per passenger. As of 1991 the limit in Australia was set at $180 000 for personal injury or death and $1600 for baggage.
4. C. Human skin synthesises vitamin D on exposure to sunlight. In 'high-sun' climates like Australia's, this provides enough for the body's requirements.
5. B.
6. C
7. C.
8. False. You have exactly the same consumer rights when buying at your door as you do anywhere else. All goods must be of merchantable quality, they must fit the purpose for which they are sold and any descriptions of them must be accurate.
9. True. One likely reason is that some LPG conversions replace highly efficient fuel injection systems with old-fashioned carburettors.
10. True. Privacy worries were in this instance considered to be outweighed by safety considerations. Small children can ring 000 and get help even if they can't say what's wrong or where they are. There is a notice in the front of the White Pages to let people know about this.

RECALLS AND BANS

If you find a recall or ban not on our list, please let us know. Companies often rent 008 or 1800 numbers for a couple of months after the recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct.

Mitsubishi Electric AWA has recalled AWA 34 cm COLOUR TELEVISIONS C3420 and C3421 (sold from late 1987) as a possible soldering defect in the electronic circuit joints may cause adjacent parts to burn inside the set. Do not use. Serial numbers of affected sets are: model C3420 (from 3420 0001 to 3420 8765) and model C3421 (from 3421 0001 to 3421 6570). Contact your nearest Mitsubishi Electric AWA service department or phone 008 811 212.

Nally has recalled NALLY BABY BOUNCERS, model N278, purchased from January 1, 1992, to the present. Possible defective stitching on the crotch strap may let the strap become loose; in this situation it is possible an infant may become entangled in the strap and suffer injury. Do not use. Contact Nally on (02) 820 2222 or retailer to arrange reinforcing of the stitching.

H-R Products and Controlled Sprinkler Supply have recalled RICHDEL WATERING TIMER CONTROL UNITS 508PR50H and 512PR50H (sold between January 1992 and December 1993) as the electrical wiring may be incorrect. This may cause some units to fail to work, while others (with the earth wire connected to a neutral terminal) may function but may have the potential to create an electric shock hazard if there is another faulty product connected to your building's wiring. Contact H-R Products or Controlled Sprinkler Supply for further information.

Unifoods has recalled JOHN WEST SMOKED MUSSELS as some cans have seam defects. Affected cans are stamped on top with one of the following batch numbers: T262, T263, T326, T327, T328, T331, T351 or T352. Contact Unifoods on 1800 801 885.

Omega Appliances has recalled OMEGA T5 TURBO CONVECTION HEATERS (sold between February and April 1994) as a defect may cause the heater to fail during operation and become a fire risk. Return to retailer or Omega Appliances for inspection.

CHOICE

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"We work on behalf of Australian consumers by producing and providing useful and accessible information, and representing and advancing their interests."

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TWELVE MONTH INDEX

AUGUST 1993 — JULY 1994

(T) Test
(D) Includes assessment of suitability for people with disabilities
(U) Update of previous report
*** Additions or corrections to reports, small follow-up items, or letters**

CARS AND TRANSPORT

Air travel, domestic Jan
Batteries, car Sep (T)
Bicycles, hybrid Aug (T)
Bullbar dangers Jun
Buying a used car Oct
Car reliability survey Mar
Car roadworthiness Apr
CD players for cars Jan (T)
Extended warranties Feb
Ford truck warranty Jul
Steering wheel locks Jan (T)

CHILDREN

Childcare questionnaire Nov
Nappies Nov, Apr*

COMMUNICATIONS AND COMPUTERS

Telephones Nov (T)

CONSUMER-IN-LAW

Duty of disclosure, insurance Jan
Insurance claims Aug
Patients' rights Dec
Stalking Mar
Telephone, harassment by Oct
Telephone, privacy Jun

CONSUMER/COMMUNITY ISSUES

Charities Jun
Privacy of information Feb

COSMETICS

Regulations for cosmetics Oct, Feb*

ENTERTAINMENT AND LEISURE

Bicycles, hybrid Aug (T)
Binoculars Mar (T)
Car CD players Jan (T)
G-Code programmer Jun(T)
Televisions, large-screen Jun (T)
Video game systems Dec
Video recorders May (T)

ENVIRONMENT

Energy, renewable Sep
Plastics recycling Jun
Renovating, energy-efficient Oct

FOOD AND DRINK

Artificial sweeteners May
Breakfast cereals Jan (T)
Brie cheese Dec (T)
Fast foods Apr (T)
Healthy eating May
Pâté Jun (T)
Peanut butter Jul (T)
Supermarket survey Jul
Water filters Sep (T,U)
Wine, two-litre casks Dec (T)

GARDEN/WORKSHOP

Chainsaws Jul (T)
Drills, impact Aug (T,D), Dec*
Flame-retardant spray Sep (T)
Garden hoses Nov (T)
Lawnmowers, petrol Nov (T), Jan*
Safety switches May (T)

HEALTH AND SAFETY

Alarms, personal emergency Apr (T,D)
Alternative medicine Oct
Antibiotics Aug
Bullbars Jun
Carers, services for Apr
Cigarettes, low-tar Aug (T)
Contact lenses Jul
Dental care Dec
Eyes, looking after Mar
Fleas, controlling pets' Feb
Hearing aids Apr
Health insurance May
The body's microbes May
Patients' rights Dec
Safety switches May (T)
Vitamins and minerals Sep

HOME

Carpets, buying Mar
Cockroaches, getting rid of Nov (T), Jul (U)
Fan heaters Jun (T,D)
Irons May (T,D)
Mattresses Aug, Oct*
Renovating, energy-efficient Oct
Security screen doors Sep, Jan*
Selling your home Jun
Sofa beds Jan

INDEX, four-year Jun

INSURANCE

Claims Aug
Complaints shemes Oct
Duty of disclosure for Jan
Health May
House and contents Oct
Income protection Jul
Letter-writing guide Apr
Life Sep, Dec*, Jan*, Feb*
Unnecessary Jan

KITCHEN

Blenders Jan (T)
Dishwashers Nov (T,U)
'Disposable' small appliances Oct
Drinks coolers, small Dec (T)
Microwave ovens, medium Apr (T,D)
Microwave queries answered Apr
Refrigerators, 395–450 litre Feb (T,D)
Toasters Mar (T,D)
Wall ovens, electric multi-function Oct (U,T,D), Nov*
Water filters Sep (T,U)

MAJOR APPLIANCES

Clothes dryers Feb (T,D)
Dishwashers Nov (T,U)
Microwave ovens, medium Apr (T,D)
Refrigerators, 395–450 litre Feb (T,D)
Televisions, large-screen Jun (T)
Vacuum cleaners, medium-priced Oct (T,D)
Vacuum cleaners, low-priced Jul (T,D)
Wall ovens, electric multi-function Oct (U,T,D) Nov*
Washing machines Sept (T,D)
Water heaters Aug (T), Nov*

MARKETING AND RETAIL

Buying Australian Feb
Buying guide, annual Dec
Market competition Mar
School sponsorship Apr
Supermarket survey Jul

MONEY

Ethical investing Jun
Extended warranties Feb
Investment options Mar
Mortgage switching Nov

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